TESTS: Yamaha XJ650LJ Turbo, Suzuki PE175, Kawasaki KDX175, Suzuki GS1100GZ Shaft, Yamaha XJ650 Seca

CYCLE GUIDE

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OFF-ROAD

MAKE & MODEL	ISSUE	TYPE	ENGINE TYPE	WHEEL TRAVEL, IN. FRONT/REAR	WEIGHT, LBS	RAKE/TRAIL, DEGREES/INCHES	GEARS
Can-Am 125 Qualifier IV-'82	March '82	Enduro	Two-stroke	9.3/9.5	221	NA	6
Honda CR250R-'82	May '82	Motocross	Two-stroke	11.4/12.0	228	27.5/4.3	5
Honda CR480R-'82	April '82	Motocross	Two-stroke	11.5/12.0	232	27.2/4.2	4
Honda XR200R-'81	September '81	Enduro	Four-stroke	9.0/10.2	228	28.4/4.9	6
Honda XR250R-'82	December '81	Enduro	Four-stroke	9.5/10.5	274	NA	5
Honda XR500R-'82	November '81	Enduro	Four-stroke	9.5/10.0	289	28.0/4.4	5
Husqvarna 250WR-'82	June '82	Enduro	Two-stroke	10.6/10.7	236	30.0/6.0	6
Husqvarna 430CR-'82	January '82	Motocross	Two-stroke	11.8/11.3	236	30.5/6.0	6
Italjet 350T-'82	December '81	Trials	Two-stroke	6.8/5.3	218	NA	6
Kawasaki KDX175-'82	September '82	Enduro	Two-stroke	9.6/10.5	227	28.0/4.7	6
Kawasaki KDX250-'81	July '81	Enduro	Two-stroke	9.9/11.0	248	28.0/4.7	6
Kawasaki KX250-'82	May '82	Motocross	Two-stroke	11.2/11.3	220	30.0/5.1	5
KTM 495 MC-'82	July '82	Motocross	Two-stroke	11.3/12.1	247	27.5/4.8	5
Maico Alpha 1 490-'82	July '82	Motocross	Two-stroke	11.6/11.5	246	28.5/5.0	5
Suzuki DR500-'82	November '81	Trail	Four-stroke	8.6/8.2	290	NA	5
Suzuki PE175-'82	September '82	Enduro	Two-stroke	10.0/9.8	229	28.0/4.4	6
Suzuki RM250-'82	May '82	Motocross	Two-stroke	10.6/12.3	217	29.3/4.8	5
Suzuki RM465-'82	April '82	Motocross	Two-stroke	10.8/12.0	234	29.3/4.8	4
Yamaha IT175-'82	August '82	Enduro	Two-stroke	10.2/11.2	216	28.5/4.9	6
Yamaha IT465-'81	May '81	Enduro	Two-stroke	10.0/11.4	247	28.5/4.8	5
Yamaha YZ250-'82	May '82	Motocross	Two-stroke	11.0/11.0	235	27.5/4.7	5
Yamaha YZ490-'82	April '82	Motocross	Two-stroke	11.3/12.8	238	28.5/4.7	4

STREET

MAKE & MODEL	ISSUE	ENGINE TYPE*	DISPLACEMENT, CC	QUARTER-MILE, SEC./MPH	TOP SPEED, MPH	WEIGHT, LBS	FUEL CONSUMPTION, MPG	STOPPING DISTANCE FROM 60 MPH, FT.
BMW R65 LS-'82	April '82	2C/G	649.6	14.15/92.4	110	417	35-50	138
BMW R80 G/S-'81	November '81	2C/G	797.5	14.07/92.3	105	405	36-54	NA
BMW R100RS-'81	May '81	2C/G	979.9	13.48/98.4	127	492	34-52	145
BMW R100RT-'82	May '82	2C/G	979.9	13.86/95.1	122	523	35-50	148
H-D FLH Classic-'82	August '82	45-deg. 2D/F	1338.6	15.47/82.0	101	752	32-42	180
H-D FXRS-'82	December '81	45-deg. 2D/F	1338.6	13.92/93.1	109	594	40-47	124
H-D Tour Glide-'80	September '80	45-deg. 2D/F	1338.6	15.58/83.9	108	785	35-44	161
Honda CB750F-'81	June '81	4A/F	748.7	12.40/108.3	118	526	38-53	126
Honda CB900F-'81	July '81	4A/F	901.8	12.21/111.1	141	547	41-47	130
Honda CB1100R-'81	November '81	4A/F	1062.1	NA	155	518	31-48	NA
Honda CBX-'81	May '81	6A/F	1046.9	12.01/113.9	136	646	23-40	130
Honda CX500 Turbo-'81	September '81	80-deg. 2E/G	496.9	NA	136	549	NA	NA
Honda FT500 Ascot-'82	August '82	1B/F	497.7	14.92/83.7	97	360	47-54	146
Honda GL500 Interstate-'81	August '81	80-deg. 2E/G	496.9	14.88/86.4	96	517	39-53	140
Honda GL1100-'81	April '82	4C/G	1085.0	12.60/106.5	139	606	41-49	NA
Honda GL1100A Aspencade-'82	April '82	4C/G	1085.0	13.23/98.8	139	724	40-50	145
Honda GL1100I Interstate-'82	April '82	4C/G	1085.0	13.30/99.5	139	697	40-50	NA
Honda MB5-'82	January '82	1B/F	49.5	NA	57	187	NA	NA
Honda Nighthawk 750-'82	March '82	4A/F	748.7	12.74/103.8	131	543	36-49	128
Honda V45 Magna-'82	June '82	4D/G	748.1	12.34/105.9	129	507	30-46	124
Honda V45 Sabre-'82	June '82	4D/G	748.1	12.37/106.8	128	511	29-47	149
Kawasaki GPz550-'81	September '81	4A/F	553.8	12.97/101.7	119	449	52-63	149
Kawasaki GPz1100-'82	May '82	4A/F	1089.9	11.33/119.4	137	534	35-48	127
Kawasaki KZ440D-'81	February '81	2A/H	443.7	14.59/89.1	107	383	56-64	135
Kawasaki KZ650CSR-'81	October '81	4A/F	652.1	NA	116	473	NA	NA
Kawasaki KZ750-'81	June '81	4A/F	738.0	12.43/108.2	128	471	38-60	128
Kawasaki KZ1000J-'81	February '81	4A/F	998.6	11.62/116.3	130	521	30-51	135
Kawasaki KZ1100A-'81	April '81	4A/G	1089.9	11.62/117.6	142	559	38-44	NA
Kawasaki KZ1100 Spectre-'82	March '82	4A/G	1089.9	11.96/110.4	142	553	36-44	132
Suzuki GS450T-'82	June '82	2A/F	448.2	NA	108	389	55-61	NA
Suzuki GS550M Katana-'82	August '82	4A/F	549.7	13.69/95.9	120	449	39-53	135
Suzuki GS650GL-'82	July '82	4A/G	673.9	NA	123	472	49-61	NA
Suzuki GS750E-'82	January '82	4A/F	747.4	12.01/109.1	127	519	34-49	127
Suzuki GS1000S Katana-'81	December '81	4A/F	997.5	11.40/118.7	141	525	33-51	129
Suzuki GS1100E-'82	May '82	4A/F	1074.9	11.20/119.3	141	530	37-49	132
Suzuki GS1100G-'82	September '82	4A/G	1074.9	11.92/114.2	137	555	42-48	138
Suzuki GS1100 Twin Turbo-'81	October '81	4A/F	1074.9	NA	172	548	NA	NA
Suzuki XN85 Turbo-'82	July '82	4A/F	673.9	NA	135	492	NA	NA
Yamaha 550 Seca-'82	February '82	4A/F	528.7	NA	121	418	41-55	NA
Yamaha 750 Seca-'81	June '81	4A/G	748.6	12.26/108.0	128	495	44-56	134
Yamaha SR500-'81	July '81	1B/F	499.4	N/A	96	361	48-66	NA
Yamaha XJ650 Seca-'82	September '82	4A/G	653.4	12.83/103.4	125	469	44-59	135
Yamaha XJ650LJ Turbo-'82	September '82	4A/G	653.4	12.61/104.7	126	541	38-57	145
Yamaha 750 Virago-'82	January '82	75-deg. 2D/G	748.8	13.28/99.8	105	481	43-48	132
Yamaha 920 Virago-'82	February '82	75-deg. 2D/G	920.0	12.94/101.6	108	514	36-49	134
Yamaha XV920R-'82	February '82	75-deg. 2D/F	920.0	13.10/100.4	112	509	37-51	128

***A**-Transverse Vertical, **B**-Vertical, (single-cylinder only), **C**-Horizontally Opposed, **D**-Tandem Vee, **E**-Transverse Vee, /**F**-Chain Final Drive, /**G**-Shaft Final Drive, /**H**-Belt Final Drive

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ON THE COVER:
Chris Eastman tries to catch the license number of a hit-and-run tire tester with the help of Dain Gingerelli's trigger finger.

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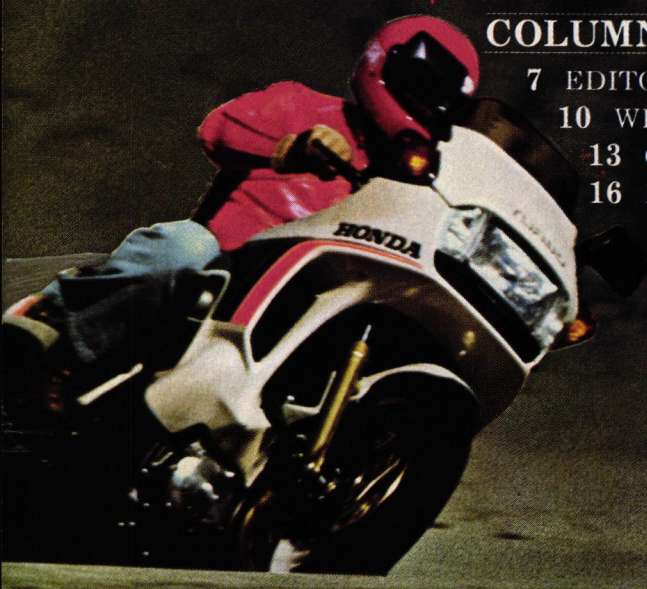
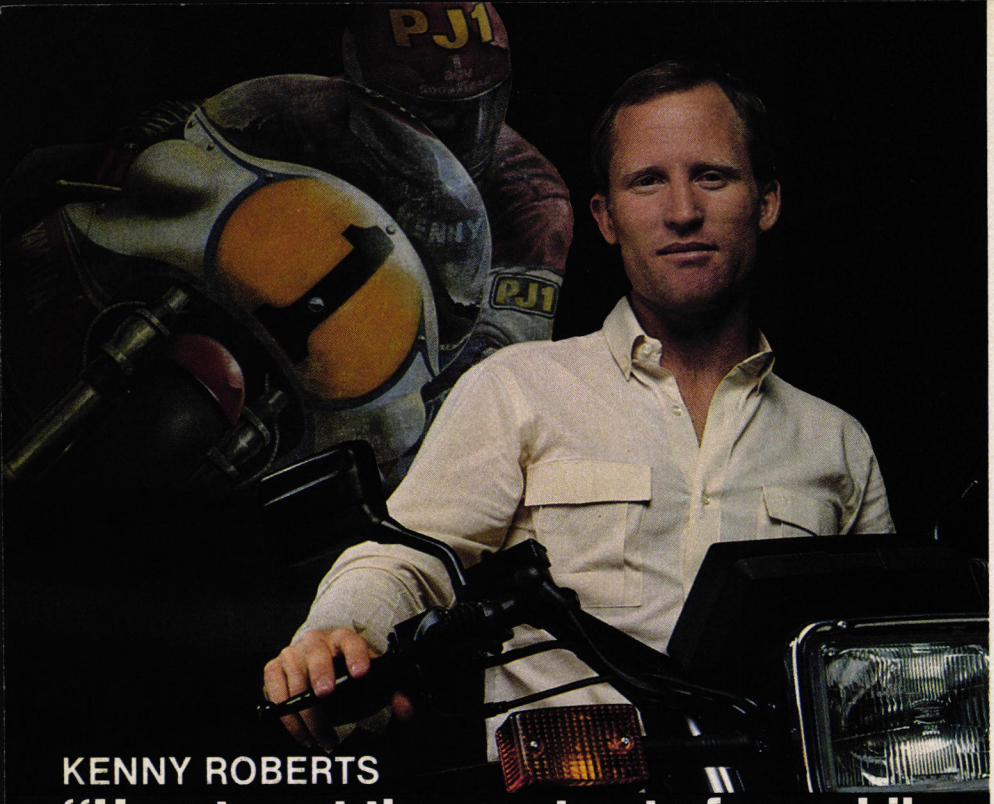


QUOTE:
"Somebody has to say it, so it might as well be us: What this world doesn't need is another frightfully complicated turbocharged motorcycle."

—Pg. 44



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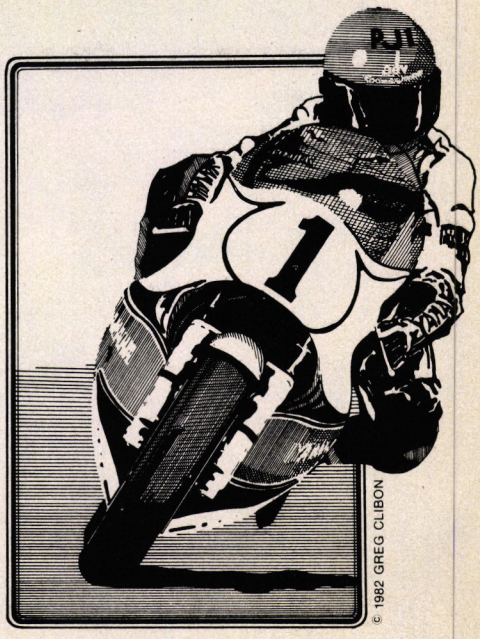


Editorial

The Formula

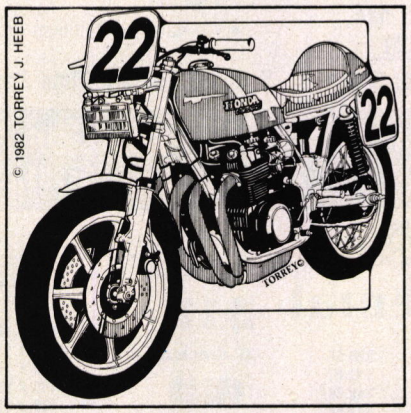
It's easy: It's not easy enough.

• The corporate soothsayers were getting nervous. Not for their jobs, but for the health of the motorcycle industry. They could be seen daily, casting bones, digging through chicken entrails, flipping the Tarot—anything and everything in search of The Formula, a powerful elixir that would breathe some life into the moribund body of motorcycle sales.

Precedent being the powerful force that it is, when the healers were called in they followed conventional healing techniques: First look for external solutions, then apply the standard stimulants as needed. And so, a media blitz was undertaken to quicken the pulse in dealer's showrooms. And while some color seemed to come back into motorcycling's cheeks when the advertising life-support systems kicked into high gear, survival by machine stimulation is expensive—and is at best a temporary cure for the symptoms, not the disorder.

So the corporate healers considered the malady. Since the accepted treatment—even applied in massive doses—didn't seem to be turning the trick, the former prescription for sales success must have been at fault. Whatever had worked before to sell motorcycles obviously worked no longer; the problem must lie in the kind of motorcycles being offered. A complete change of scene would work wonders for the patient, they decided. Somewhere out there was a kind of bike that would draw motorcycle sales out of the depression they were in and get them back on their feet. And so, model proliferation was prescribed as the general-purpose, scattergun antibiotic.

But when the symptoms still persisted, even more drastic remedies were applied. If massive doses of advertising and the injection of new and previously unheard-of kinds of motorcycles weren't the answer to get motorcycle sales up and around, perhaps the problem was even more serious than the soothsayers originally feared. Maybe they'd finally reached the dollar barrier, beyond which motorcycles simply cost too much. Perhaps that was why warehouses were still congested and the flow of new blood to the showrooms had slowed to a trickle. And so, realizing that sometimes a cure can be temporarily as painful as the disease, the healers recommended mid-year price rollbacks and widespread rebate programs.



But the congestion remained. Finally, all the treatments having failed to return the patient to its former state of vigorous health, the healers threw up their hands and proclaimed that the problem was all one of outside conditions. The economic climate was simply too cold, they agreed, for motorcycle sales' fragile constitution. After all, the patient had been deteriorating steadily for some time. And so their prognosis was that the best thing to do was simply to bundle the patient up and keep the life-support systems plugged in. When the economic climate got better, the patient's condition would improve. Meanwhile, the corporate healers would continue to run a few tests; they couldn't just wait around for The Formula to come to them.

An interesting parable, that. But the moto-industry types of that story were looking in the wrong direction. Today's stagnant motorcycle sales aren't really a function of too little of the right kind of advertising or even from making the wrong kinds of motorcycles. And they're only partially a condition of the economic climate in general. It doesn't require reading any tea leaves to puzzle it out. Like any other armchair diagnosis of a complicated issue, it's as simple as all get-out once you choose to view it that way: If you want to stimulate motorcycle sales, just make it easier to actually buy a motorcycle.

Which means, in light of today's tight-money economy, that in addition to sales, service, parts, warranty, advertising and all the myriad other factors that the motorcycle manufacturers must contend with, they're going to have to come up with some form of individual financing as well. Whatever form that financing takes, its most notable feature will have to be the ability to clear a would-be buyer for a motorcycle purchase while he's still in the dealership and interested in the buy—without making him take his case to some local lender. The decision to buy a motorcycle can prove far too ephemeral to subject it to the flinty eye of a disinterested banker who hears "motorcycle" and stops paying attention.

Naturally, sourcing financing for individual motorcycle purchases will involve massive amounts of capital and some kind of complex infrastructure, but solving the problem of sagging motorcycle sales is not going to be cheap, no matter how you look at it. To put the cubic dollars such a plan would require into perspective, you need only consider that the Japanese motorcycle manufacturers already have sunk some $80 million into advertising for 1982 alone, with apparently not enough to show for it. And make no mistake: A successful moto-financing structure would forge the missing link between a potential new owner's desire to buy a motorcycle and the manufacturer's hope to sell one.

To other, better minds should go the task of planning out such a financing scheme. But something like General Motors' GMAC financing system would seem to serve as a rough conceptual model. And why not? It's been sliding would-be buyers into new cars for years. It only stands to reason that it would work just as well for motorcycles, if not even better.

The first motorcycle manufacturer to offer a comprehensive financing plan would, no doubt, have climbed far enough out on the limb to invite disaster. But great gains aren't always made by taking small steps. The first successful motorcycle financing plan would change the face of motorcycling for all time. The next plateau would be reached. And it stands to reason that whatever company made it happen would tap into a pressure line of pent-up buyer enthusiasm that's gone untapped for years. That one company would have a virtual lock on motorcycle sales of all kinds—for just about as long as it took the other companies to hop on the time-payment bandwagon. And if you don't think they would, you've been spending to much time with parables.

—Larry Works

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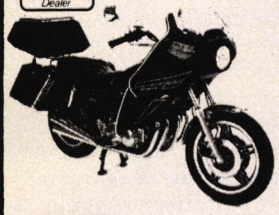

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425 x 18	$56.95
510 x 18	$57.95
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510 x 17	$61.95
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510 x 18	$57.95
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510 x 17	$66.88
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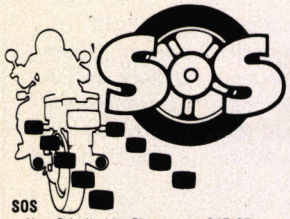

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West's Side

Crapshoot

Lottery tickets on sale now—details at your local traffic court today!

• I was in the kitchen making tea when I heard it, a soft thump! in the front room. I didn't think anything about it at the time—a book falling on its side, a motocross boot tipping over in the closet.

I'd rented a room in one of those wonderful old-style "Motor Courts." You know the kind, with a separate kitchen, cupboards full of dishes, gingham curtains on the windows, the smell of old shoes in the air. It was cozy as Gramma's place. And because it was an old-style Motor Court with an old-style air-conditioner and the day had been hot as the underside of an iron skillet in mid-omelette, I'd left the front door open, hoping the evening breeze would cool the room. Sure, it was an open invitation to flies, moths and burglars—but who ever worries when they're at Gramma's house? So when I heard the soft thump! in the front room, it never occurred to me that . . . .

The next morning my wallet was gone. It had been lying on the desk in the front room near the door and . . . well, I don't have to tell you the rest.

You don't have to figure hard to know what happens next. All the local dogs and cats get a good kicking, there is a sordid attempt at biting through a motocross helmet. Manhole covers sail through the air like discuses at the Olympic Trials, propelled by emotions quite distinct from the sheer joy of living.

But as soon as the sedatives began to take effect, Detective Sgt. Coldblood of the Los Angeles Sheriff's Dept. was summoned and arrived within the week, pen poised, brows knitted—nay, velcro-ed—prepared to stain numberless official forms with vital information.

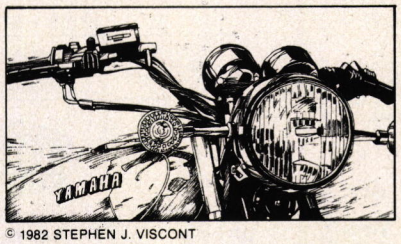
Uh, how do you spell that; W-E-S-T. Okay, And, uh, how do you spell that; T-E-D. Okay.

No, no officer, there's no "A" in that; it's S-T-O-L-E-N.

Okay.

But it made a nice change from writing parking tickets when some crime-crazed psychopath with the use of all his limbs had the audacity to park in a perenially unused "Handicapped Only" space.

Yet the good detective and I ran into a snag. When it came out that there'd only been a small amount of cash in the wallet Det. Sgt. Coldblood was visibly crestfallen. Solving this case would not, after all, provide the necessary publicity to get him promoted to District Attorney.



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In fact, about the only serious consequence of all this, really, was that I now had no driver's license. And being without a license in Los Angeles is like being without a glass of water in Kuwait. Worse still, since I was from out of state, how was I to get a New York D.L. at a California D.M.V.? Dunno, said the helpful Coldblood. Okay, then, how do I "legally" ride my motorcycle over to the D.M.V. to find out—get a note from my priest? Besides, since it is now Saturday morning and the D.M.V. doesn't open until Monday morning, how do I legally ride *at all*?

Climbing into his police cruiser, the future D.A. looked at me as if I'd asked him why God had thought the Rocky Mountains necessary.

He drove off into the naked city, leaving me to ponder the meaning of the Rockies and more, far more. For instance, it is well known that in L.A. you drive to survive. I had the motorcycle, the gas and enough money to buy more—but I had no license. Which meant I could ride as long as I didn't get pulled over for anything. Which meant I had to ride *perfectly, totally within the law.*

I want you to think about that for a moment. Okay, take a moment longer.

You're probably starting to see it now. Motorcycles are a little conspicuous to start with, right? And there are all those amazing laws to consider, like, the operator must signal his intention to make a left turn 38.7 meters before initiating the turn. Unless, that is, he is in a school zone and wearing yellow socks. And if Sagittarius is in its third moon and there is a yield sign within three blocks of the nearest fire hydrant, he must hold up three fingers while executing his turn. If this turn is made during a month when shellfish are out of season and the operator has an unpaid utility bill under his toaster at home, he will be stopped for probable cause and questioned until he begs to be allowed to use a "comfort station." Which is to say, in the best of times the cops are not on the motorist's side. And for motorcyclists all of that applies, only more so.

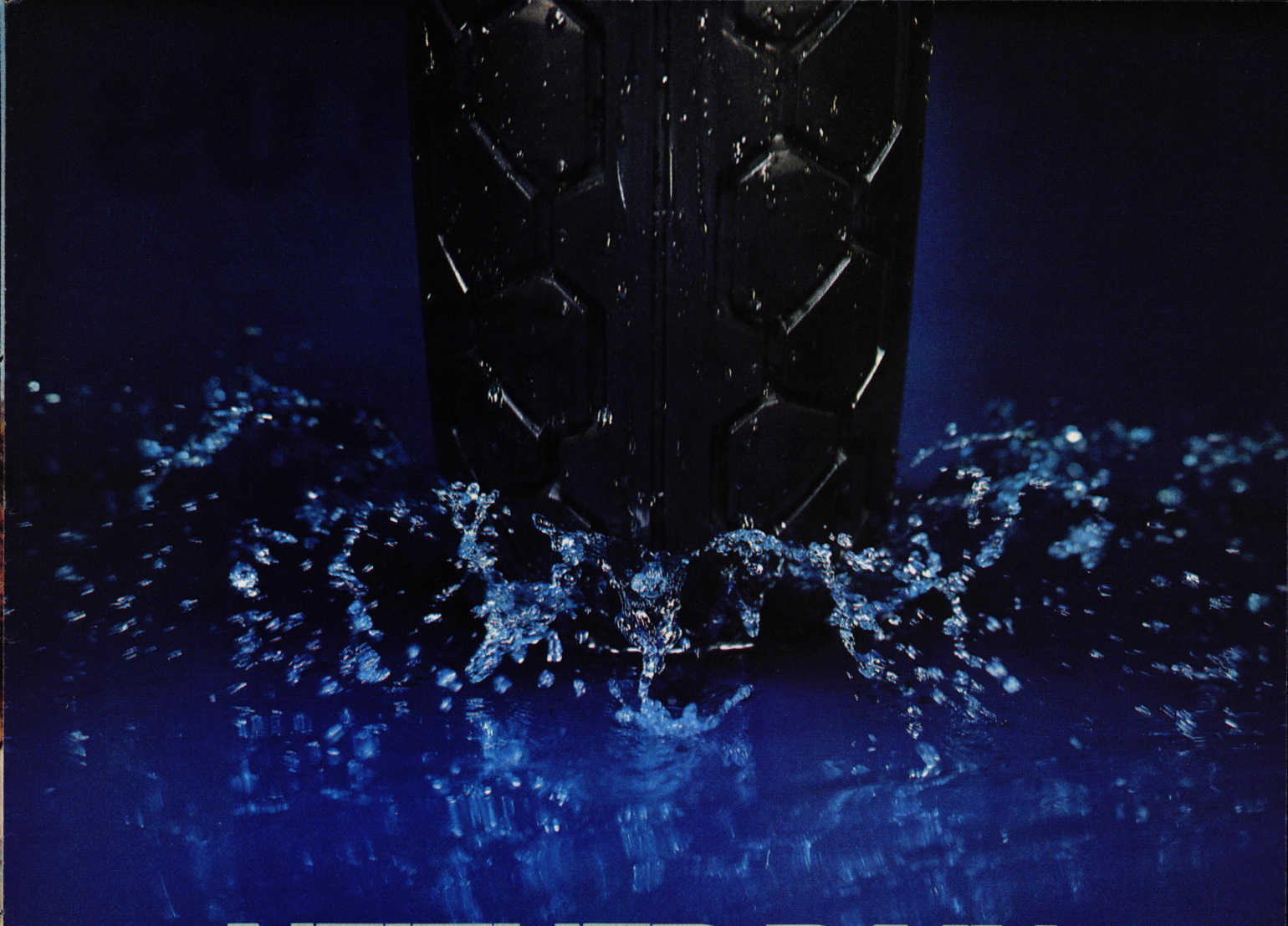
Well, all I can say is, if you've ever wondered what it feels like to be stripped naked and forced to run up the center aisle of St. Peter's while the Pope is celebrating High Mass, all you need to do is ride 20 miles along Pacific Coast Highway on a motorcycle without a driver's license. No matter what you do, it isn't good enough. No matter how careful you are, you're not careful enough. No matter how innocent you try to be, you're guilty as hell. It's exhausting.

And it makes two points boldly clear. First, if you abide strictly by the traffic laws, you stick out like purple antlers. *Nobody* goes 35 in a 35-mile-per-hour zone. *Nobody* signals for each and every lane change. *Nobody* comes to a squealing halt rather than pass through a yellow light. Obey the law and you couldn't be more conspicuous if you set your leathers on fire and did a 10-mile wheelie.

Which brings us to the second point, namely that traffic law enforcement is a kind of sloppy lottery. Everybody violates the law all the time anyway, so if you don't get assessed for your transgressions today, expect it tomorrow. Of course, if you're outrageous about it, you'll get assessed outrageously. But for most of us, traffic cops are just sort of leisurely "traffic tax collectors." They let you run up a bill of petty violations (because the laws are so bloody complex that full compliance is practically unimaginable—and unimaginably impractical) and then they charge you once in awhile to keep the billing straight. Once very long ago a Santa Barbara judge had the candor to explain traffic enforcement to me exactly that way. I am forever in his debt.

Well, Monday morning finally came without a ticket; and after an appropriately too-long wait in line at the D.M.V., I was a licensed California driver, home address, a certain old-style Motor Court on Pacific Coast Highway. But, I guess I should be glad for that quiet thump! in the front room, otherwise I might have gone on forgetting that every second the wheels are turning, we and the cops participate in a haphazard legal crapshoot. And, as always, the house makes the rules . . . .

—Ted West



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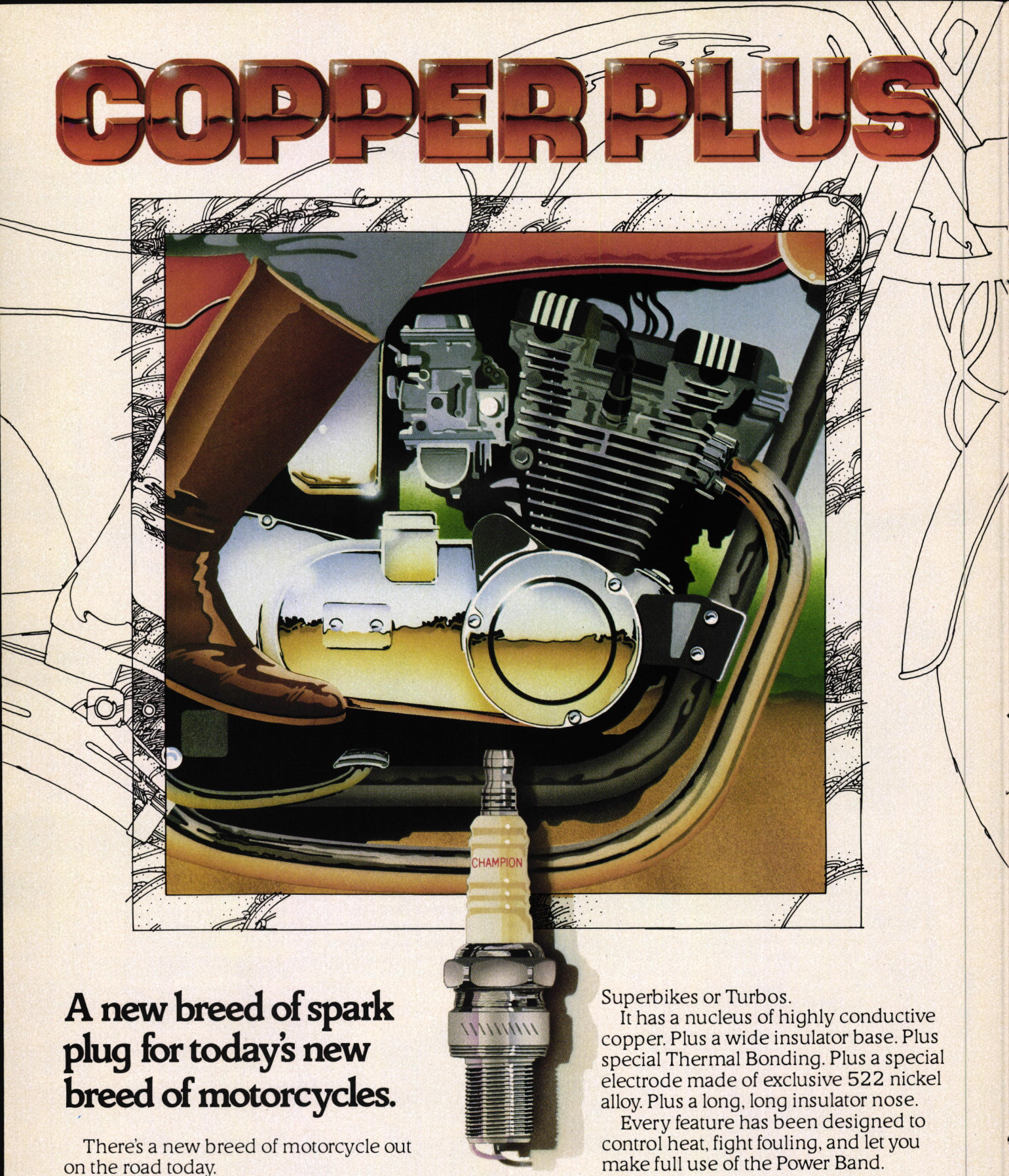

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Guest Editorial

Biker Ads

Repeating the vicious cycle.

• In high school, I spent a great portion of my time trying to avoid the company of a guy named Petey. To put it charitably, Petey had nothing going for him. Because he was somewhat scrawny, Petey took to wearing padded black leather jackets, tight black pants and oversized black boots sturdy enough to kick a moose unconscious. Because he had a complexion that resembled a wingtip shoe, he avoided direct sunlight and took to wearing large reflective sunglasses under broad-brimmed leather caps.

When other kids were saving up to buy jalopies, Petey bought a motorcycle. I saw him last before graduation, riding his loud and souped-up machine through the center of a drive-in restaurant. He was trying to run down carhops.

Charming this kid was not, and since those post-adolescent years not a fleeting thought of him had crossed my mind—until recently. Imagine my surprise to see Petey on national television! He now is an actor in motorcycle commercials, and he's obviously learned something in the intervening years, for he represents several different companies at once. For Honda, he's known as "Jake," a mysterious man who closes out a rundown café in the middle of nowhere and roars off into the night. Where is he going? Not home, that much we know.

For Yamaha, he is shown at a city traffic light, terrifying some poor, wholesome looking slob who thinks his car is fast. Though the commercial doesn't show it, I know that Petey beat this guy off the line but good. And for Suzuki, he walks in slow motion, dressed all in black leather, seductively pulling on a heavy riding glove that means business. At least, I *think* he does this for Suzuki—trouble is, all the commercials that Petey makes for motorcycles look alike, and I have a difficult time identifying the manufacturer no matter which one I view or how many times I view it.

Of course, in none of these commercials do we see the guy's face, but I know it's Petey. He was always so good at aping masculine menace. Some things about him have improved: His jackets look designed by Giorgio Armani and the pants fit; now he is a symphony of black leather instead of an errant chord. His oversized shades have given way to sleek black helmets better suited for jousting in jet fighters than peeling off to the A&P for a quart of beer. Petey is still the loner, though: The only other people in these ads are seen briefly, mouths agog (men) and apout (women) at the very sight of this awesome blend of man and machine.

All this is great for Petey—you can buy a lot of Clearasil for what he makes—but I wonder how effective it is for the advertiser. The two-wheeler companies seem to be after the S&M market. We're not talking wholesome, Marlboro Man macho here, folks; we're talking the dark side of sex, with equipment to match.

Petey may have the wimp market tied up (you'll pardon the expression), but that's his nature. What about the agency people responsible for glorifying him? Can they really believe that Petey will reach the consumer and put him in the mood to buy with this hard-edged multi-macho fantasy approach? I can't help but believe that the majority of people who buy motorcycles are turned off by this let's-all-go-down-to-the-docks-and-do-unspeakable-things presentation. There are a few folks of my acquaintance who are enthusiastic motorcycle owners, but the idea of dressing in black leather to match their Yamaha/Honda/Suzuki is about as attractive to them as attending the next Hell's Angels convention. Via their agencies, the motorcycle companies seem to be saying that straight people, mild-mannered people, families, women and those allergic to leather need not apply.

I'm all for fantasy and speed, but any company that gives me a detached, somewhat sinister image to symbolize freedom and leisure time is going to leave me cold and suspicious. Instead of asking who's going to pay attention to such a commercial, it's important to figure out who's going to buy as a result of it. No wonder "Jake" hangs out at a rural dive; how many folk want an antisocial speed freak in their midst?

Petey, of course, doesn't have to worry about such things. I see him going home to his bachelor apartment and showering—all without once removing his Darth Vader helmet. I figure the reason he never shows his face is that his complexion still hasn't cleared up. —*Mary Alice Kellogg*

Mary Alice Kellogg is a writer, editor and author, most recently of Fast Track, *a series of profiles of achievers. Reprinted courtesy of* Ad Week.

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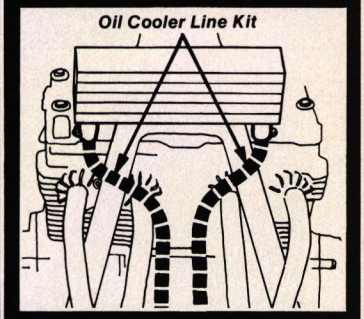

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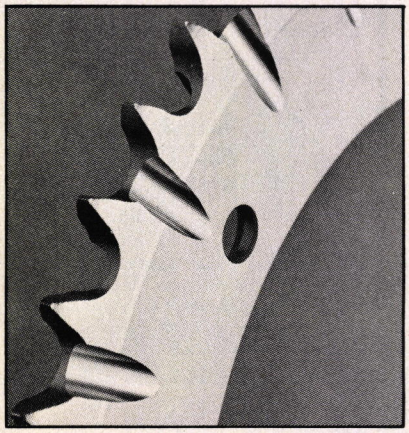
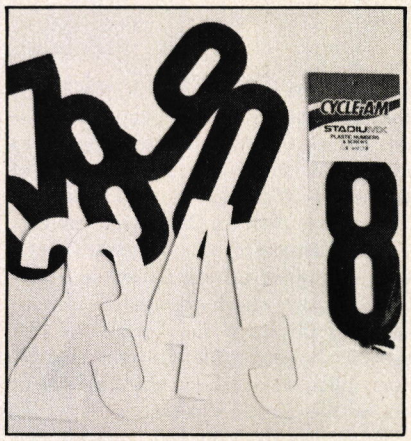
Sidewinder: Keeping your chain on track in muddy conditions can be a problem when dirt and debris build up between the teeth of your sprocket, but Krause Racing has developed its Sidewinder sprockets specifically to handle the situation. The Sidewinders have relief channels machined between the teeth to allow a place for mud to escape. Sidewinders are available for most popular motorcycles, and have prices starting at $29.95. For information, call or write Krause Racing, Dept. CG, 305 East North Avenue, Northlake, Illinois 60164; (312) 344-2233.

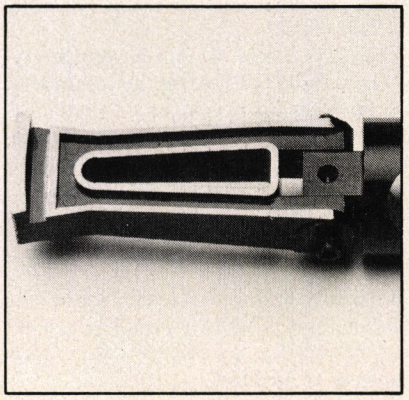


Take This Hand and Glove It: Kawasaki's new gauntlet-style winter gloves are made to take to the road, wet or dry. Inside each glove's zippered compartment is a waterproof mitt that can keep the glove, and your hand, dry in foul weather. The gloves are made of grade-A American cowhide and feature adjustable wrist-closure snaps. You can try them on at most Kawasaki dealerships, and for $32.50 you can wear them home.

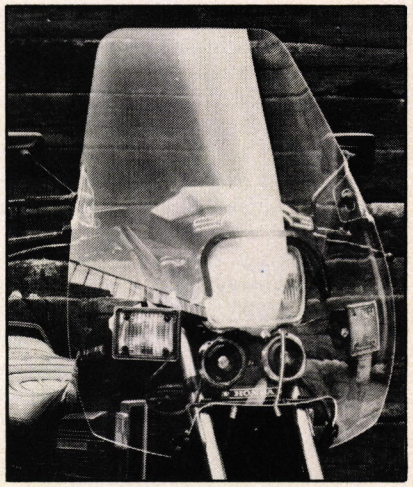


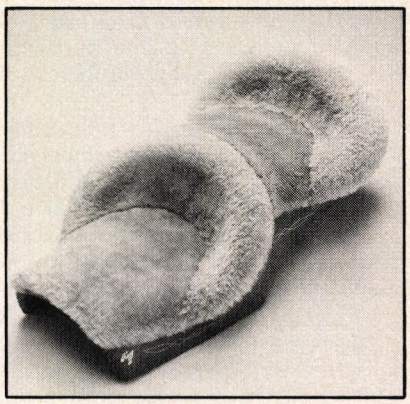
StadiuMX Numbers: Cycle Am has got your number—in black, white or red. The reusable StaduiMX numbers are made of injection-molded plastic, and come with nylon screws and lock nuts that allow you to fasten them to almost any numberplate. Both the six- and the eight-inch sizes have a suggested retail price of $1.95. StadiuMX numbers, numberplates, fenders and other dirt-bike products are featured in the Cycle Am catalog, which can be obtained by sending $1 to Cycle Am, Dept. CG, 28621 Canwood Street, Unit D, Agoura, California 91301.

Mag Match: If you're like so many style-conscious motorcyclists who simply loathe being seen in public with footpegs and mag wheels that don't match, Superstreet Products can save your self-respect with Mag Pegs. Mag Pegs come in four different styles—one to match Honda Comstar wheels, two that go with Suzuki mags, and one universal design. They come in either black/gold or black/silver color combinations and carry a suggested retail price of $24.95. Mag Pegs are available from Superstreet Products, Dept. CG, Route 5, P. O. Box 124, McMinnville, Tennessee 37110.



Pilot Light: SAENG's newest fairing, the Pilot, is designed to fly with Honda Magnas and Sabres. The fairing features flush-mounted running lights that illuminate its outer edges at night. The Pilot has a suggested retail price of $237, and is available in five different heights. All models are covered by SAENG's 90-day warranty. For more information, call toll-free (800) 228-1402, or write Surface Aeronautics Engineering, Dept. CG, P. O. Box 1246, Columbus, Nebraska 68601.





No Sheepskate Look: Any touring enthusiast who likes the feel of sheepskin, but thinks sheepskin covers look low-budget, can replace his stock seat with a Hang 2 Sheepskin Saddle. The Hang 2 isn't a strap-on cover but a complete seat ready to bolt on to most touring bikes. The seat sells for $299.95, and for Interstate and Aspencade owners, a matching backrest can be obtained for $49.95. Hang 2 Saddles come with a rain cover, and are available in black, silver, wineberry and natural colors. Hang 2 Custom Division, Dept. CG, 1543 Truman Street, San Fernando, California 91340; (213) 367-5896.

Continued

Q WHEN IT SEEMS LIKE EVERYONE THESE DAYS IS HAVING A MOTORCYCLE SALE, WHY WOULD YOU BUY A KAWASAKI?

A. $1999.00 B. $2199.00 C. $2299.00

D. Legendary Kawasaki Performance.

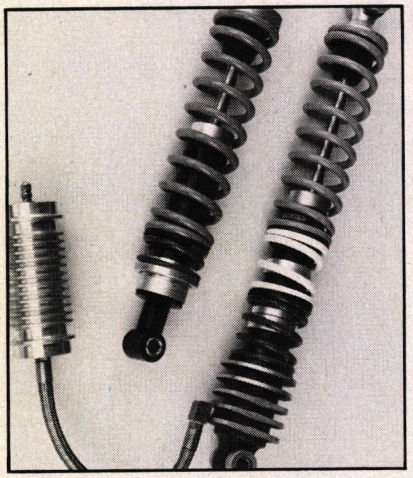
E. All of the above.

A (E) All of the above, because (A) $1999.00 is the lowest price ever for a 1982 Kawasaki 550 LTD, or if you want an incredible deal on a larger bike, then (B) $2199.00 will put you on a 1982 650 CSR, and (C) $2299.00 gets you a 1982 750 CSR. But most importantly, (D) every bike gives you legendary Kawasaki performance, and if you ask someone that owns one what that means, he'll explain "Let the good times roll!"

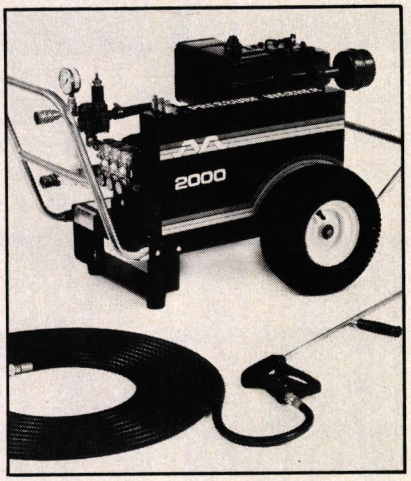
Kawasaki
Let the good times roll.

Manufacturer's suggested retail price, excluding freight, dealer prep, title and taxes. Actual prices set by dealers. Valid at participating dealers while supplies last. Offer expires September 30, 1982.

Minicross: Works Performance Products has a new way of keeping Junior on track when he races his YZ60 or YZ80. Works Maxi Mini Mono shocks are now available to bolt right onto either machine. The YZ60 shock is equipped with dual-rate silicon steel springs, and carries a suggested retail price of $79.95. Triple-rate springing is featured on the YZ80 shock as well as a large-capacity remote reservoir, and its price is $150.00. Both shocks are available through dealers or from Works Performance Products, Dept. CG, 8730 Shirley Avenue, Northridge, California 91324; or phone (213) 701-1010.

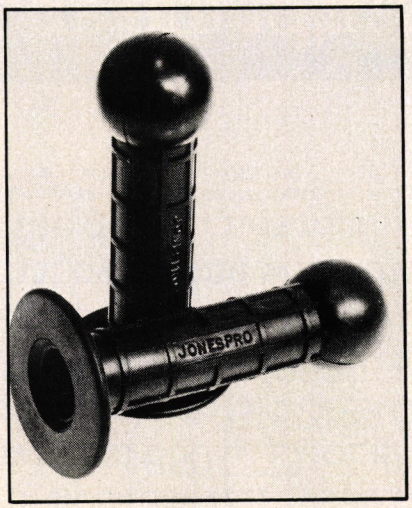


Pops' Pages: Yoshimura's 1982 catalog is out, and it has 20 pages of high-tech tinder for your road-burning pleasure. Information on Yoshimura exhaust systems, piston kits, camshafts, valve springs and other four-stroke goodies is featured in the catalog, which can be yours by sending $4 to Yoshimura R&D, Dept CG, 4555 Carter Court, Chino, California 91701.

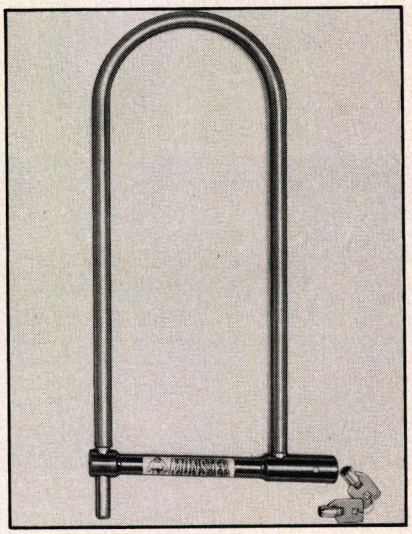


Clean Machine: Motorcycle service departments and individuals who are really serious about keeping their bikes *clean* can get their own pressure washer, something like the one at the corner carwash. Mi-T-M Corporation's model 2004 is gas-powered by a Briggs & Stratton 11-horsepower motor with a Triplex plunger pump. Its accessories include attachments for sand injection, chemical injection and a diesel-fired heater module. And at a price of $2750.00, the 2004 could pay for itself in only 3667 wash jobs. For more information contact Mi-T-M, Dept. CG, P.O. Box 77, Peosta, Iowa 52068.

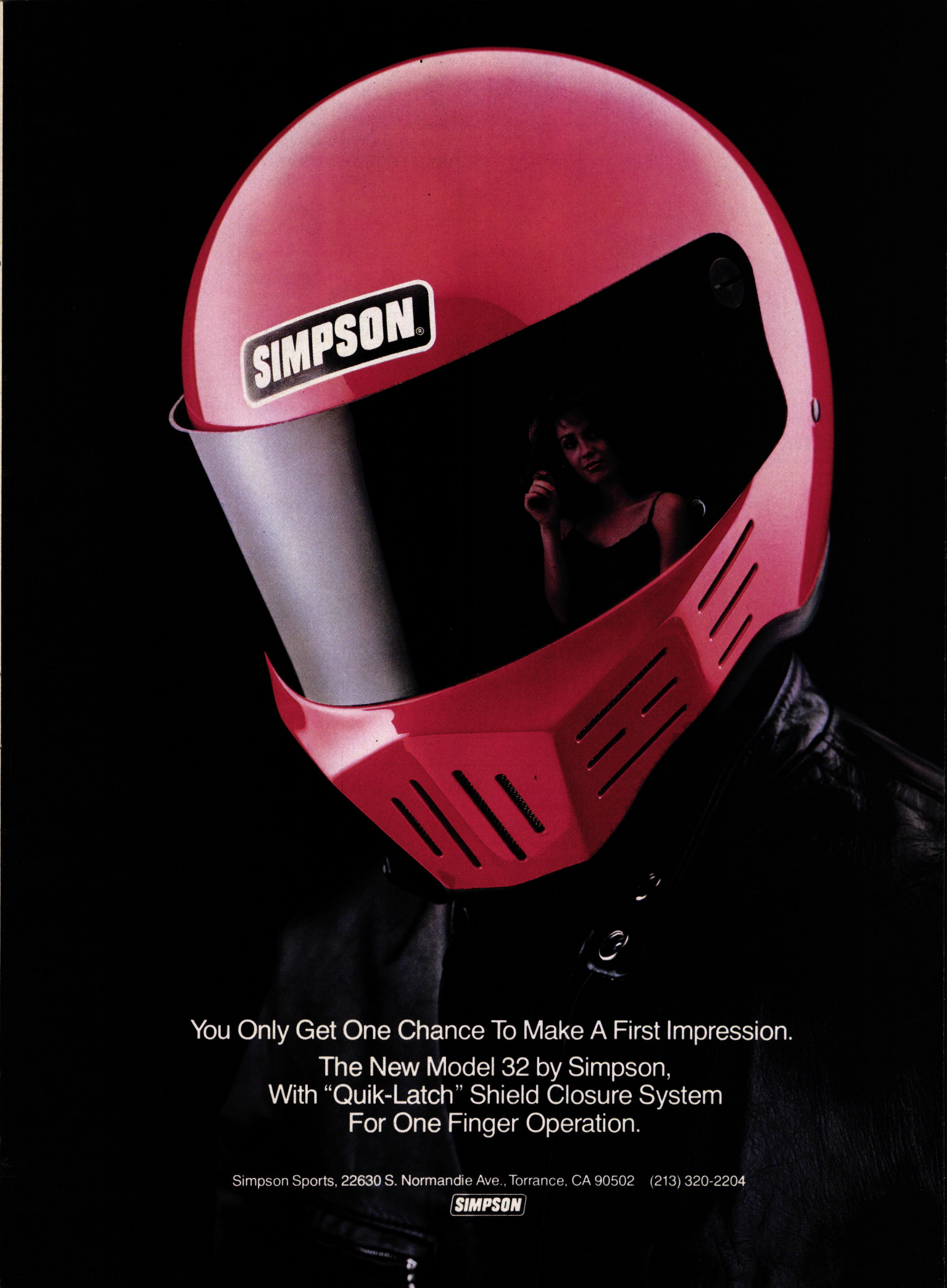
Hand Ball: KK Motorcycle Supply is bouncing onto the market with it's new Jones Ball Grips. The Ball Grip is a standard Jones grip with a large rubber ball molded on the end. The Ball serves to keep the handlebar from scraping paint off trucks and skin off riders, and also is claimed to reduce hand cramping by improving circulation. Interested riders and dealers can contact KK Motorcycle Supply, Dept. CG, P.O. Box 45, Dayton, Ohio 45401. Dealers outside Ohio can call (800) 543-9638. The number for Ohio dealers is (800) 762-2312.



Fork Fix: Kawasaki KZ and GPz 550s are invading racetracks everywhere, and to help make the transition from street scorcher to race machine, Champion Moriwaki USA is offering the Champion High-Performance Fork Handling kit. The kit consists of heavy-duty springs, custom preload spacers, Kal-Gard Smooth Stroke fork oil and instructions. $47.95 will buy the kit through most dealerships or directly from Champion Moriwaki USA, Dept. CG, 1980 Harbor Boulevard, Costa Mesa, California 92627 (714) 642-2040.



Monster Lock: If the beast you want to lock up has two wheels, Citadel's Monster Lock might be for you. Its thru-hardened alloy construction and $250 guarantee make it an excellent alternative to bulky chains and padlocks. The Monster Lock features Citadel's Drill Guard, which prevents a drill from entering the lock cylinder, and it features either gold or black vinyl coating. For more information, write Bike Security Systems, Dept. CG, 177 Tosca Drive, Stoughton, Massachusetts 02072.

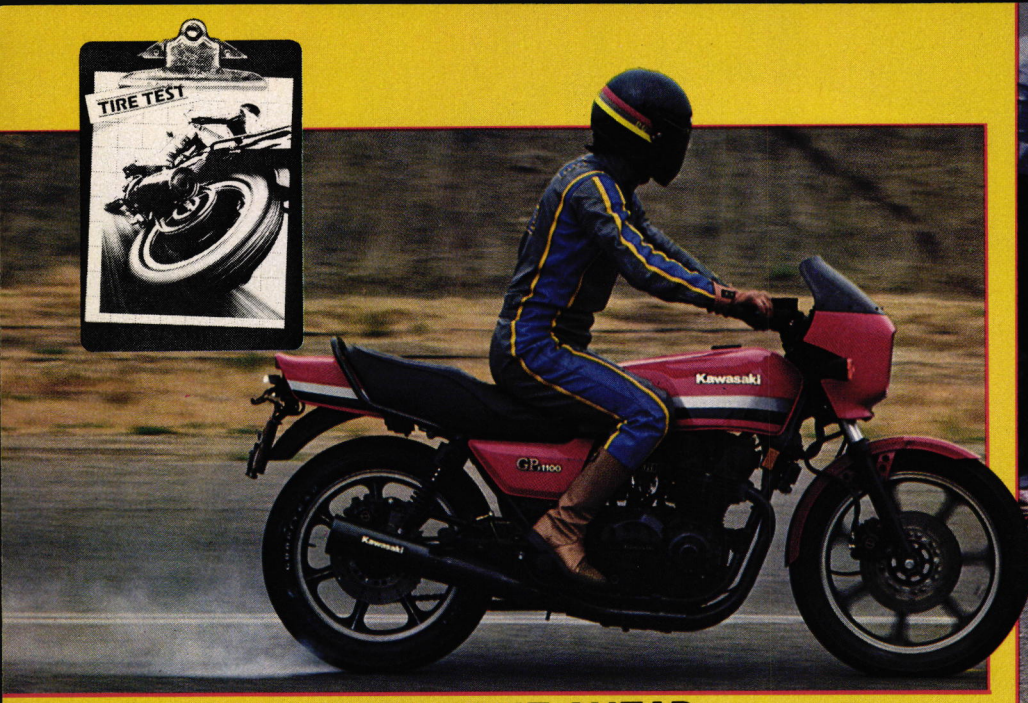


You Only Get One Chance To Make A First Impression.

The New Model 32 by Simpson,
With "Quik-Latch" Shield Closure System
For One Finger Operation.

Simpson Sports, 22630 S. Normandie Ave., Torrance, CA 90502 (213) 320-2204

SIMPSON



CAUTION, SPEED ZONE AHEAD:

High-Performance Tire Test

In which a veritable rubber mountain is leveled—along with the myths that surround it—in search of the ultimate street performance tire.

BY DAVID DEWHURST

More misinformation, prejudice and outright nonsense surrounds street tires—in both choice and performance—than any other aspect of motorcycling. Every bench racer, every "expert" knows the hot tip on the best tire combination. Just ask; they're eager to tell you. But ask two of them and you'll likely get conflicting answers. Try 10 and you'll get six different tires that are the absolute best—and no guarantee that *any* of them are right.

The question of best tire is simpler if your riding consists of mainly commuting or even touring; high mileage and cost probably will be the deciding factors. But in the high-performance zone, where each variable of machine and rider is tested constantly, what tires you choose can be critical. You've only got two small patches of contact with the pavement, and midway through a fast sweeper, with the world tilted at an impossible angle and the next apex coming up fast, is no time to discover that those patches belong to tires designed to last 20,000 miles or sell five dollars cheaper—at the expense of cornering competence.

Right then you need the best in high-performance rubber; nothing less will do. But separating fact from fiction on the maximum motorcycle tire has been hard—if not altogether impossible. We're often asked to name the best in street tires, and up to now, like all other "experts," we've reported our own favorites. Sure, we know what tires the racers recommend—this week—and we've ridden on the latest tire designs, but on different bikes, on different surfaces at different times. Never back-to-back in controlled testing. So we've been as guilty as any in offering bench-race expertise on high-performance tires.

But no more. To answer your questions—and our own—about the absolute best-performing street tire, we've assembled 10 brands of tires from Europe, Japan and America; 10 sets of high-performance tires that each manufacturer selected as the best from its respective line to put to our high-speed test. And to wring out those tires, we used Kawasaki GPz1100s (and included their stock Dunlop K300 tires as a baseline), Motorcycles with enough horsepower, handling and cornering clearance to find the rubber's limit.

"High performance" can still cover a broad range of street riding, so we defined our parameters even more closely. High speed was an obvious part of our test equation, and we wanted the winning tires to perform with neither weave nor wobble. The winners would have to be able to handle hard braking, full-tilt lean angles and every ounce of fierce acceleration the GPzs could muster.

But for all the racetrack riding that went into this test, it wasn't designed to find the best box-stocker's rubber—though the winners probably would be just as much at home on the track as on the street. We included hundreds of street miles to test for harshness and road-holding on all kinds of pavement irregularities. Wear didn't figure in the test results. After all, we were testing for pavement excellence, nothing less. And as the tire manufacturers were quick to point out, sticky rubber and long tire life are mutually exclusive. Cost, also, was not a determining factor, since we figured that you don't count pennies in the search for the ultimate performance tire.

And we found it.

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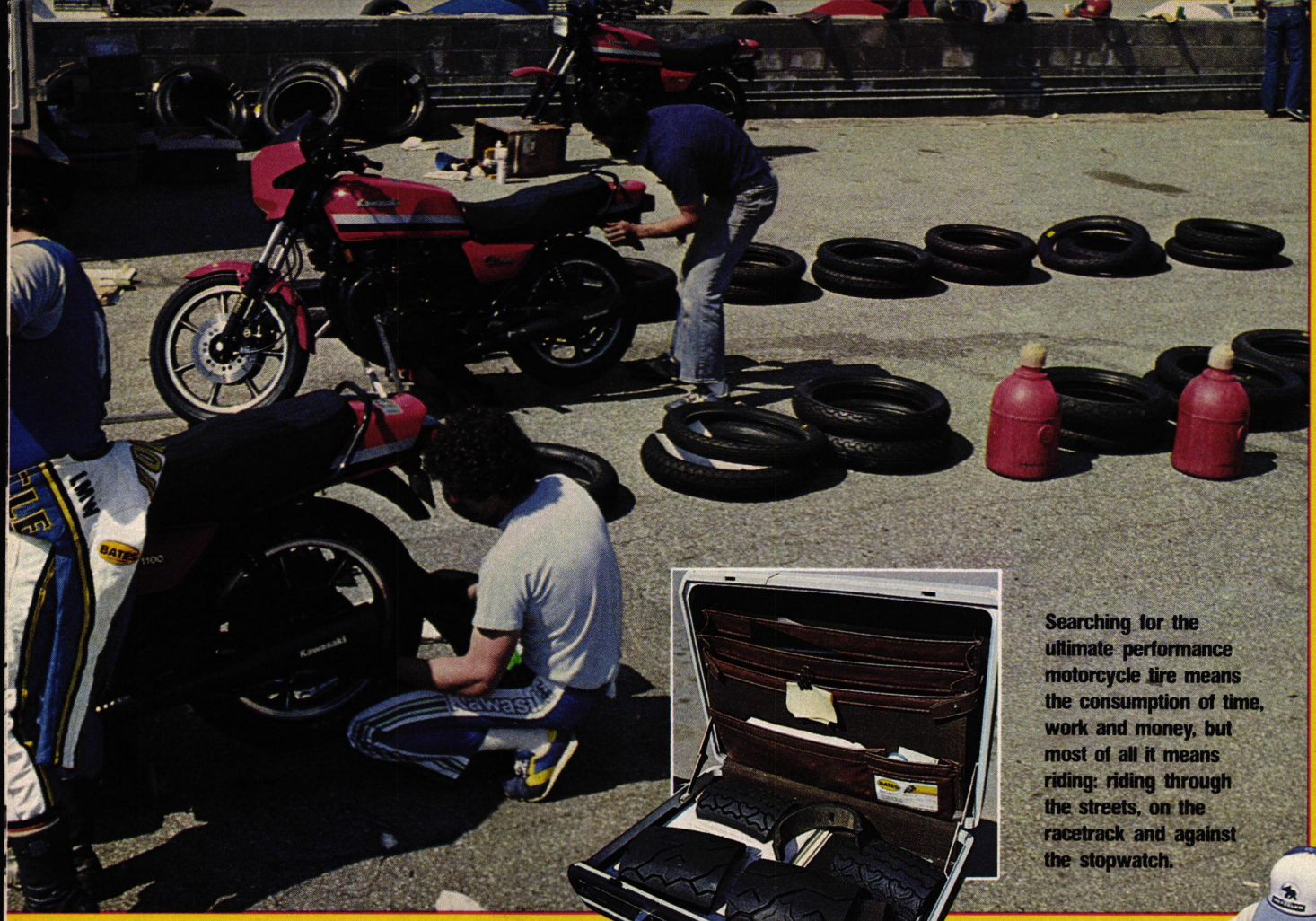
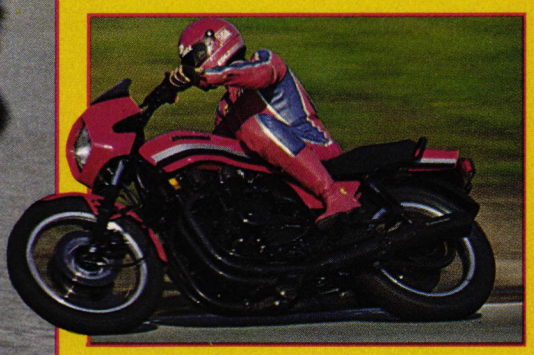


Searching for the ultimate performance motorcycle tire means the consumption of time, work and money, but most of all it means riding: riding through the streets, on the racetrack and against the stopwatch.



PHOTOGRAPHY © 1982 RICH COX

TIRE TEST *Continued*

The Competitors At Weigh-In

Bridgestone Mag Mopus

Distributor:
Bridgestone Tire Company
2160 West 190th Street
Torrance, California 90504
(213) 320-6030

Front Tire:	
Price	$69.00
Size tested	100/90H19 tubeless
Diameter	000mm
Width	96mm
Weight	9.5 pounds
Recommended inflation pressure	32 psi
Maximum load rating	505 lbs at 40 psi
Rear Tire:	
Price	$75.99
Size tested	120/90H18 tubeless
Diameter	000mm
Width	123mm
Weight	14.0 pounds
Recommended inflation pressure	28 psi
Maximum load rating	640 lbs at 40 psi

Goodyear Eagle HST

Distributor:
Goodyear Tire and
Rubber Company
1144 East Market Street
Akron, Ohio 44136
(216) 794-3259

Front Tire:	
Price	NA
Size tested	MM90V19 tubeless
Diameter	659mm
Width	112mm
Weight	12.0 pounds
Recommended inflation pressure	28 psi
Maximum load rating	570 lbs at 40 psi
Rear Tire:	
Price	NA
Size tested	MP90V19 tubeless
Diameter	654mm
Width	122mm
Weight	16.5 pounds
Recommended inflation pressure	30 psi
Maximum load rating	690 lbs at 40 psi

Dunlop K300

Distributor:
Kawasaki Motors
Corporation, USA
2009 East Edlinger Avenue
Santa Ana,
California 92711
(714) 835-7000

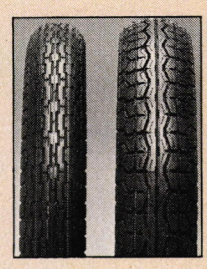
Front Tire:	
Price	$66.92
Size tested	100/90V19 tubeless
Diameter	641mm
Width	93mm
Weight	10.5 pounds
Recommended inflation pressure	30 psi
Maximum load rating	505 lbs at 42 psi
Rear Tire:	
Price	$93.27
Size tested	120/90V18 tubeless
Diameter	660mm
Width	124mm
Weight	15.5 pounds
Recommended inflation pressure	32 psi
Maximum load rating	640 lbs at 42 psi

Continental ContiTwins

Distributor:
Continental Products
Corporation
1200 Wall Street West
Lyndhurst,
New Jersey 07071
(201) 460-0200

Front Tire:	
Price	$77.71
Size tested	3.25V19 tubeless
Diameter	633mm
Width	92mm
Weight	10.5 pounds
Recommended inflation pressure	31 psi
Maximum load rating	395 lbs at 46 psi
Rear Tire:	
Price	$93.85
Size tested	4.25V18 tubeless
Diameter	657mm
Width	123mm
Weight	13.7 pounds
Recommended inflation pressure	30 psi
Maximum load rating	550 lbs at 46 psi

IRC Grand High Speed



Distributor:
IRC/Inoue Rubber Company
14111 Kingsley Drive
Gardena, California 90249
(213) 323-7720

Front Tire:	
Price	$48.40
Size tested	3.25V19 tubeless
Diameter	646mm
Width	98mm
Weight	11.0 pounds
Recommended inflation pressure	36 psi
Maximum load rating	450 lbs at 40 psi
Rear Tire:	
Price	$57.00
Size tested	4.00V18 tubeless
Diameter	654mm
Width	114mm
Weight	15.5 pounds
Recommended inflation pressure	36 psi
Maximum load rating	580 lbs at 40 psi

Avon Venom

Distributor:
Hap Jones Distributing
1040 Alum Rock Avenue
San Jose, California 95131
(408) 263-1918

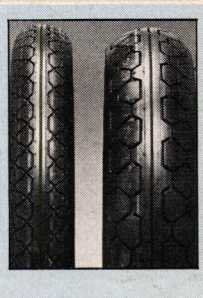
Front Tire:	
Price	$77.95
Size tested	100/90V19 tubeless
Diameter	643mm
Width	96mm
Weight	11.5 pounds
Recommended inflation pressure	32 psi
Maximum load rating	485 lbs at 42 psi
Rear Tire:	
Price	$85.45
Size tested	120/90V18 tubeless
Diameter	662mm
Width	124mm
Weight	15.0 pounds
Recommended inflation pressure	34 psi
Maximum load rating	605 lbs at 42 psi

Dunlop Sport Elite

Distributor:
Dunlop Tire and
Rubber Corporation
P.O. Box 1109
Buffalo, New York 14240
(716) 879-8200

Front Tire:	
Price	$83.86
Size tested	110/90V19 tubeless
Diameter	651mm
Width	99mm
Weight	12.0 pounds
Recommended inflation pressure	28 psi
Maximum load rating	430 lbs at 42 psi
Rear Tire:	
Price	$97.28
Size tested	130/80V18 tubeless
Diameter	657mm
Width	131mm
Weight	15.5 pounds
Recommended inflation pressure	30 psi
Maximum load rating	562 lbs at 42 psi

Metzeler Perfect ME Sport



Distributor:
Metzeler
P.O. Box 15536
Pittsburgh,
Pennsylvania 15244
(412) 787-8880

Front Tire:	
Price	$76.93
Size tested	3.50V19 tube type
Diameter	644mm
Width	97mm
Weight	11.5 pounds
Recommended inflation pressure	32 psi
Maximum load rating	510 lbs at 42 psi
Rear Tire:	
Price	$99.32
Size tested	130/80V18 tube type
Diameter	644mm
Width	132mm
Weight	15.0 pounds
Recommended inflation pressure	32 psi
Maximum load rating	660 lbs at 42 psi

Michelin A48 and M48

Distributor:
Michelin Tire Corporation
2500 Marcus Avenue
Lake Success,
New York 11042
(516) 488-3500

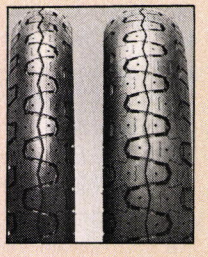
Front Tire:

Price	NA
Size tested	100/90V19 tubeless
Diameter	648mm
Width	101mm
Weight	11.5 pounds
Recommended inflation pressure	32 psi
Maximum load rating	460 lbs at 42 psi

Rear Tire:

Price	NA
Size tested	120/90V18 tubeless
Diameter	659mm
Width	127mm
Weight	17.0 pounds
Recommended inflation pressure	36 psi
Maximum load rating	620 lbs at 42 psi

Pirelli Phantom



Distributor:
Berliner Motor Corporation
Railroad Street
and Plant Road
Hasbrouck Heights,
New Jersey 07604
(201) 288-9696

Front Tire:

Price	$64.90
Size tested	3.50V19 tube type
Diameter	652mm
Width	101mm
Weight	11.5 pounds
Recommended inflation pressure	32 psi
Maximum load rating	510 lbs at 42 psi

Rear Tire:

Price	$72.90
Size tested	130/80V18 tube type
Diameter	651mm
Width	125mm
Weight	14.5 pounds
Recommended inflation pressure	35 psi
Maximum load rating	665 lbs at 45 psi

Swallow MT

Distributor:
P. J. Company
20435 Susana Road
Long Beach,
California 90810
(213) 639-1000

Front Tire:

Price	NA
Size tested	3.25H19 tube type
Diameter	644mm
Width	94mm
Weight	8.5 pounds
Recommended inflation pressure	28 psi
Maximum load rating	470 lbs at 32 psi

Rear Tire:

Price	NA
Size tested	4.60H18 tube type
Diameter	660mm
Width	113mm
Weight	12.0 pounds
Recommended inflation pressure	30 psi
Maximum load rating	760 lbs at 40 psi

ROAD & TRACK:

Trial By Tire

It took four hard riders and two great bikes to find the One True Tire.

BY PAUL DEAN

We spared no expense. Cut no corners. Made no compromises. Only the finest, most sophisticated testing equipment in the world was good enough. This was, after all, an ambitious undertaking, a quest for the ultimate high-performance tire for today's ultimate high-performance motorcycles, and we couldn't expect to have much success using second-rate testing gear. So we put to use the most sensitive and advanced motorcycle tire-evaluating instruments known to man: man. Four of them, actually, with the assistance of two motorcycles.

What? No banks of computers? No reams of statistical printouts? No accelerometers and potentiometers feeding data into stacks of recorders? Not even any crash-preventing outriggers? Just ... just human beings on motorcycles?

Absolutely. See, over the years, the tire industry as a whole has proven time and again that nothing does a better job of evaluating a motorcycle tire than a rider. The dyno in the seat of his pants can yield more useful, relevant information than all of the machinery ever built for that purpose combined. Naturally, the tire companies do use computers and other types of modern equipment, but largely for development, not testing. And they're the first to explain that lashing any kind of apparatus onto a motorcycle usually alters the bike's chassis dynamics so much that any resulting numbers aren't very meaningful in the real world. When they want to know how well a tire actually works, they find out through a human on a motorcycle, not through a machine. That's why we conducted our tire evaluation using a stopwatch and a tape measure as our only test equipment; the street and racetrack as our only laboratories; and the four test riders as our only data processors.

Three of those four riders were CYCLE GUIDE staffers David Dewhurst, Mark Diotte and myself, all of whom are fully accredited evaluators of motorcycles. Indeed, but not evaluators of tires. Which is why we needed an experienced tire tester for our fourth rider, someone with enough savvy in this specialized area to give credence to the conclusions reached by the CYCLE GUIDE triumvirate. For that purpose we hired Dennis Smith, proprietor of the Cycle Tune repair shops in the Los Angeles area, sixth-place finisher (and top privateer) in the 1980 Daytona 200 and—most important for this test—a rider with thousands of tire-testing miles under his belt. And just in case you're wondering why riders of the neophyte/novice level weren't represented in this evaluation, the reason is simple: These tires, the motorcycles they're designed to complement and the speeds at which they must be ridden before they justify their expense all have little meaning for riders on the early stages of the learning curve. So by unanimous decision, none were included.

We also were in agreement that Kawasaki GPz1100s were the perfect motorcycles on which to evaluate these tires. What better vehicle for determining the world's best-handling hyperbike tire than the world's best-handling hyperbike? Not only that, the GPz11 owns the tremendous power needed to test the mettle of these tires in ways other than cornering; it has no chassis quirks that could confuse the test results; and it offers the kind of proven, stone-axe reliability needed just to survive the unmerciful flogging the bikes were bound to receive during the test.

Finding the best location for the actual test riding wasn't quite as easy. It took considerable exploration before we settled on the ideal route for the street segment of the testing: a 50-mile loop that included city streets, twisty back roads, country two-lanes and ruler-straight limited-access highways, with a good mix of asphalt, concrete, rain grooves, bumpy pavement, altitude changes—the whole nine yards. Our choice of locations for the racetrack segment, though, was almost automatic: Laguna Seca, not just one of the prettiest and most challenging roadrace circuits in the country, but one ideally suited to the requirements of tire testing. Its nine turns run the speed/difficulty gamut, from banked, high-speed sweepers to off-camber, first-gear case-draggers like the infamous Corkscrew; from flat-out corners that re-

Continued

quire virtually no entrance braking, to others that force you to tap-dance on the gearshift while grabbing all the brakes you can find. When you come away from a tire test at Laguna, you really know something about the tires you've been testing.

It's vital, however, that you understand that we were *not* looking for the ultimate roadracing tire at Laguna; the goal still was to find the best high-performance street tire on the market. And that meant spending considerable time riding right at the ragged edge on some of the fastest motorcycles on earth. There was no way we could have done that on the street with the kind of control and consistency—not to mention the legality and the safety—needed to reach an accurate conclusion. That had to be done on a racetrack, to be sure.

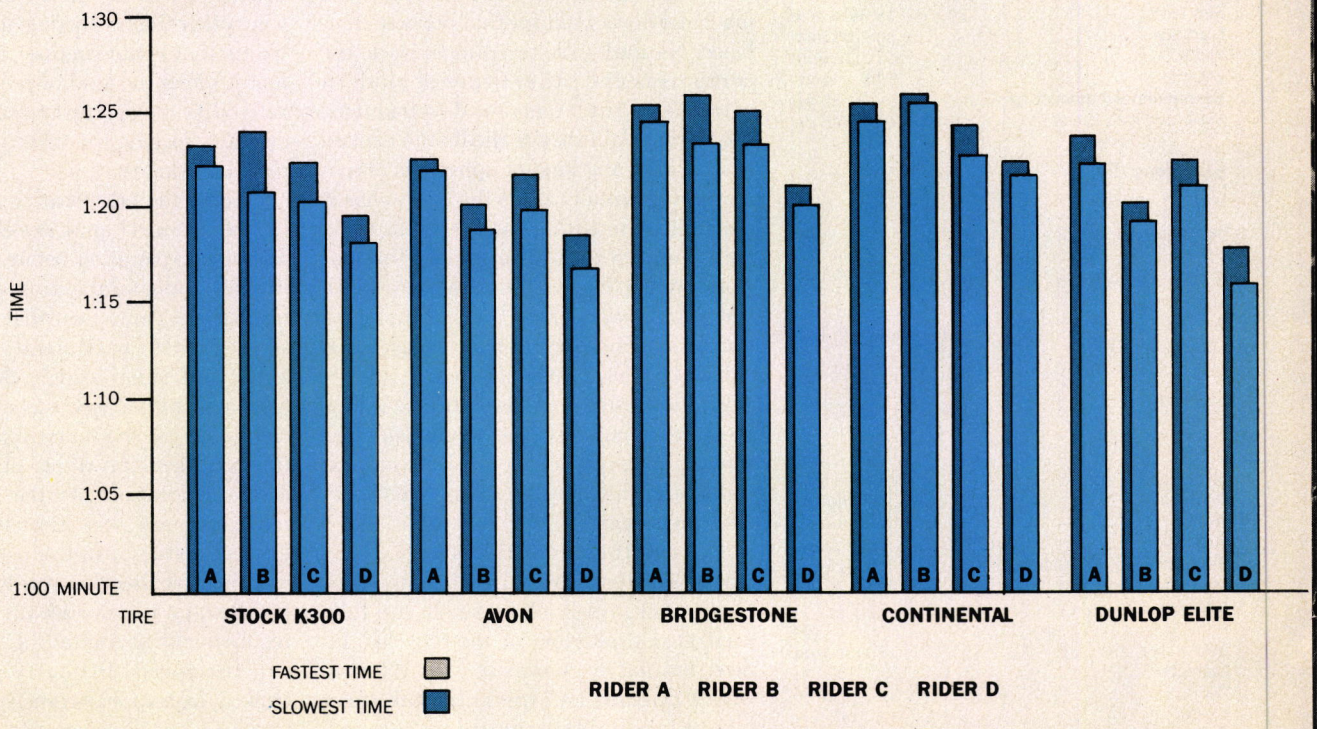
As it turned out, a few of the tires actually performed like genuine racing rubber at Laguna. But because we established a slightly different criteria for on-road performance than for on-track, those same tires didn't necessarily get high marks on the street. On the track we were looking almost exclusively for maximum-performance behavior—how well the tires stuck during flat-out cornering; whether they squirmed under hard braking; if they caused any twitches or wobbles; how much, if any, tenths cornering aggression they inspired. But on the street, we put more emphasis on "feel," although sport-riding competence still remained paramount. It's just that other factors—ride quality, reaction to longitudinal ruts and grooves, ease of banking, general stability—had to be given due consideration.

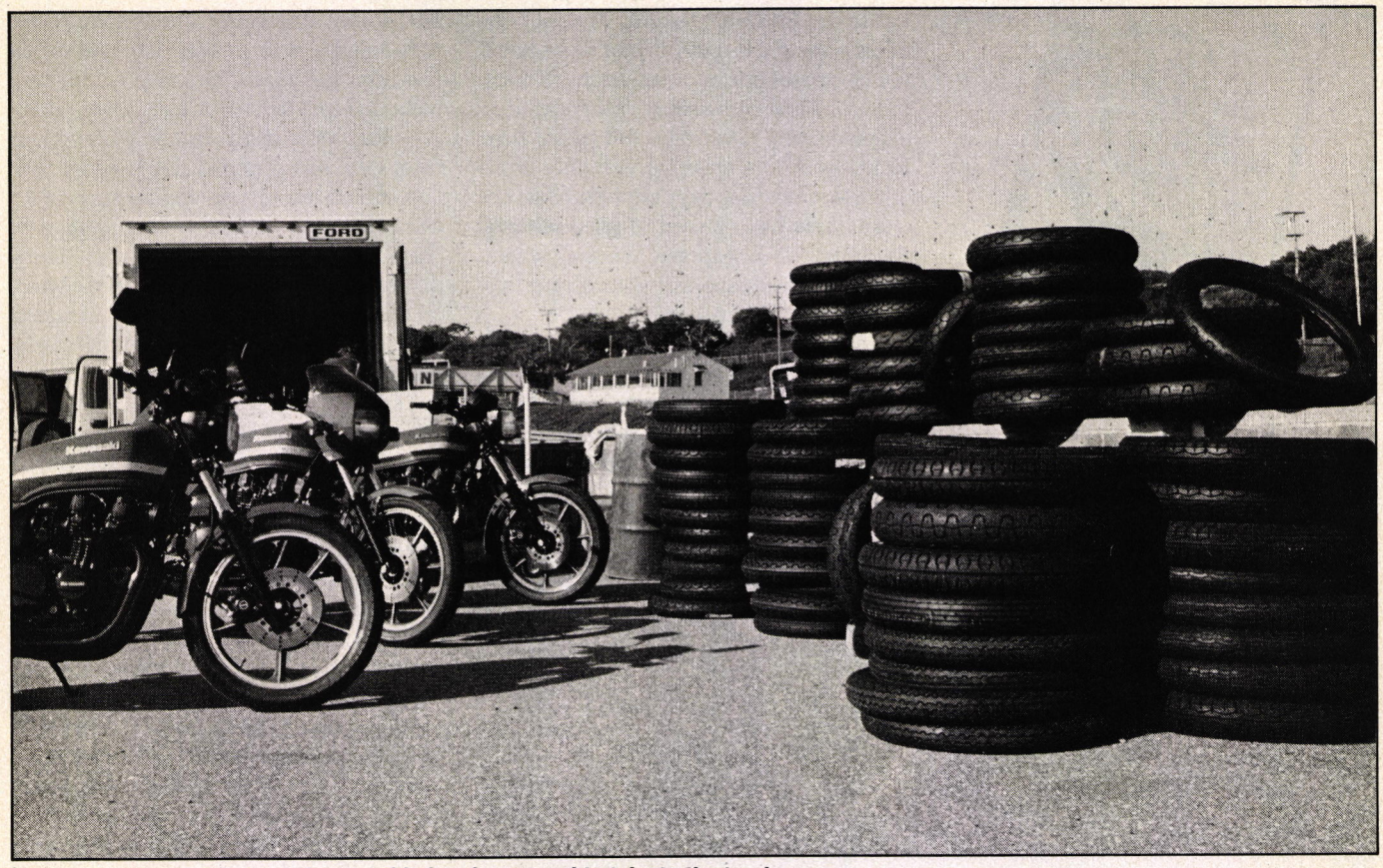
On the other hand, certain other factors were given no consideration at all. Like price. The cold truth is that if you can't afford tires of the highest quality for your $4000, hundred-horse hyperbike, you also can't afford to tap much of its sporting potential. Price shouldn't enter the picture.

Nor should tire life, since none of these gumballs offers much in the way of long mileage. Matter of fact, some of the rear tires wear so quickly that you can almost feel the back of the bike getting lower while you're riding. But if you want the ultimate in adhesion you'll have to give up the ultimate in tread life, and that's that. If the technology existed to give a tire both, you'd never again see a tire change in a long race.

We didn't evaluate wet-weather performance, either, for several excellent reasons. First, the average hyperbike rider spends a small percentage of his time in the rain; and even when he does ride in the wet, he's not in full-on acceleration/cornering mode. Moreover, some of the qualities that make a tire good in the rain are not ideal on dry surfaces. And the tire manufacturers assured us that wet-weather tire performance had so many uncontrollable variables (amount of water on the road, type of road surface, etc.) that consistent, comparable, meaningful test data would be next to impossible to obtain. So, given that, and the fact that rain-worthiness wasn't totally germane to our objective, we didn't test for it. We *did,* however, do dry-road 60-to-zero panic braking on all the tires; but since there's room for error in that procedure, as well, we did it not to compare stopping-distance numbers but simply to find out if we had missed any braking problems on

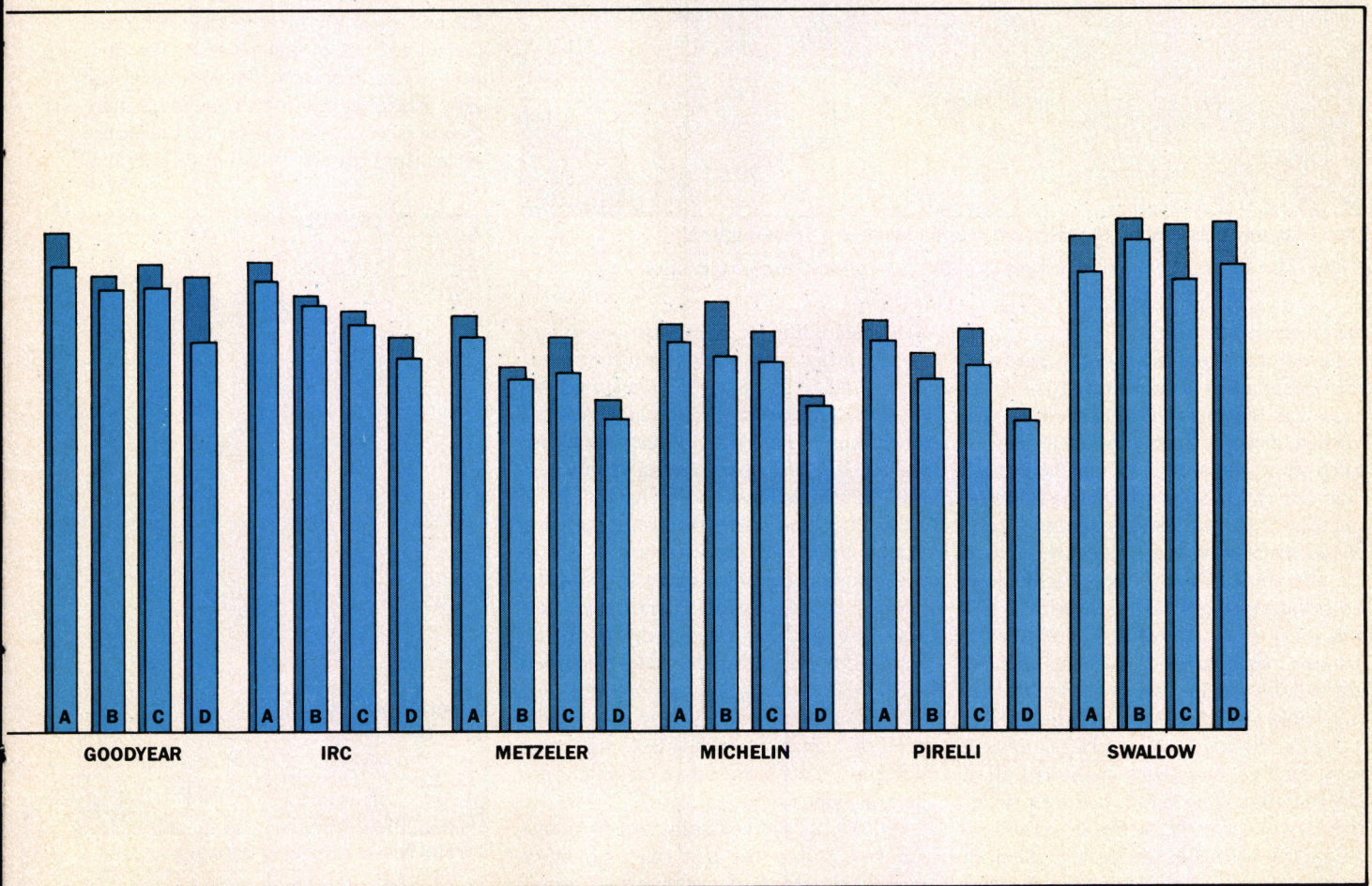
Highs And Lows Of The Laguna Saga





Motorcycle tire testing squad, assembled and prepared to take to the track

Motorcycles, testers and racetrack go up against 11 sets of tires.



Continued

TIRE TEST *Continued*

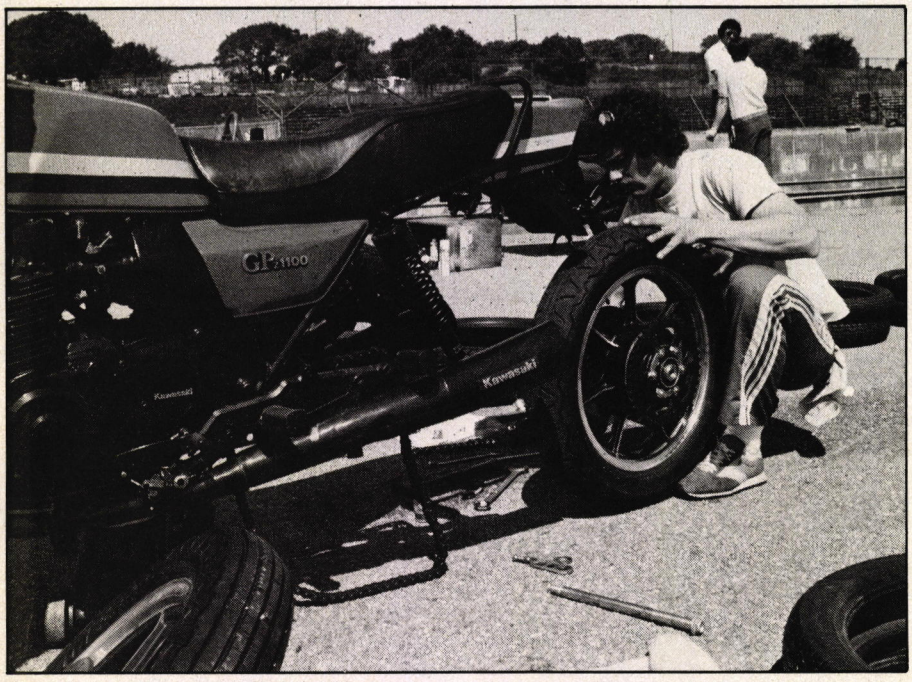
lap times. Further, the only "racing" the riders were allowed at Laguna was against the clock, not one another, again, to maximize lap-time consistency. We were, after all, evaluating street tires, not racing tires. But because the upper performance limits of those street tires were established on the track, there was no need to get berserk on the street. We rode mostly at posted speeds, stepping up the pace only through the two-lane twisties in the loop.

As if not being allowed a little friendly racing wasn't frustrating enough, the riders couldn't learn their lap times until the entire test was finished. But worse yet, they were never even allowed to know what *tires* they were riding on. Each rider was led up to and away from his bike without being permitted to see what tires were on his machine, and he wasn't allowed to get near the bikes when the rubber was being mounted. Upon dismounting after a test ride, he was led away for a debriefing by either CG Editor Larry Works or Managing Editor Joe Kress. He was asked a set of preselected questions about the tires he had just experienced, told to rate them on a scale of 1 to 10 and urged to make random comments while his debriefer recorded everything on a special form used for each tire/rider combination. But at no time until the conclusion of the test was a rider informed of his lap times or on which tires he had ridden.

All of this secrecy stemmed from our concern before the test that the riders wouldn't be able to detect many differences in the tires—the better ones, at least. We were worried that in their struggle to tell one from the other, they might "imagine" certain characteristics if they knew which tires they were using. But in the end, our fears were unwarranted. Each set of tires had enough readily discernible personality traits that the riders came to know most of them by behavior, if not by name. Those differences sometimes were hard to detect on the street, but in the crucible of Laguna Seca, they couldn't have been more recognizable if announced over the loudspeaker system.

So after two full months of grappling with the logistics of this test—including a solid week of testing on the street; four straight 14-hour days at Laguna Seca; enough tire changing to make a brand-new Coats tire machine look 10 years old and flat wear out the wheel hardware on two GPz1100s; the procuring of, the storing of, the transportation of and the sheer effort of simply *handling* 88 tires (two sets of each for the racetrack, one set for the street and one complete spare set); the more than 2000 total miles of test riding; the expenditure of more money and man-hours than on any four previous CYCLE GUIDE projects put together; after all that, we finally had what we had set out to find: a winner.

We'll now tell you all about that winning tire, and about all the others, as well. Some got nudged out of first place by the slimmest of margins, some don't belong in the same league as the rest. They're all quite good tires, of course; it's just that some are better than others. But there's only *one* best. ●



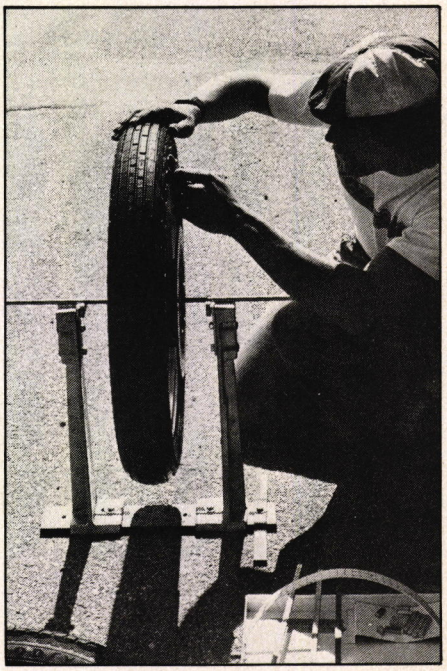
Mounting and remounting the different brands became a tiresome task

The GPzs survived 96 tire changes in four days of nonstop evaluation.

the track and the street.

As we ultimately learned, the test team didn't miss much of anything, probably because the testing procedures were so regimented, damned little was left to chance. Each set of tires always was ridden by each rider exactly as far over the same course as the others. On the street, each rider completed one 50-mile loop on each set of tires. On the track, all four riders logged six timed laps (preceded by two warmup laps and, every time a brand-new set of tires was installed, eight break-in laps) on each set until all the tires had been tested once, then the whole procedure was repeated.

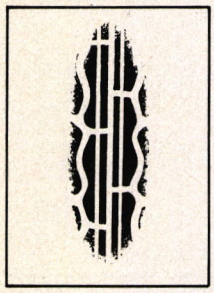
We did the track testing twice to achieve some kind of consistency in the lap times. No one other than Smith had ever ridden the Laguna circuit, so the CG riders required about one full trip through all of the tires to learn the track and stabilize their



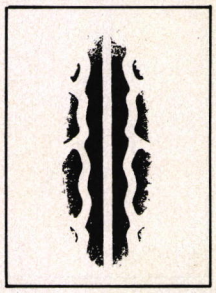
Careful tire-rebalancing between rounds

So all have equal weight in testing.

DUNLOP



Front



Rear

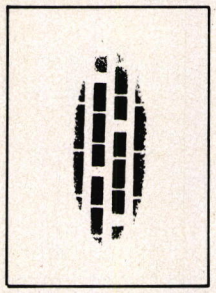
• If you believe the myths about OEM tires being nothing more than a cheap way to keep a bike's rims clean, the Kawasaki's stock Dunlop K300s will surprise you. They surprised us by turning lap times as fast, or in some cases faster, than the alledgedly more-exotic European rubber. The K300s always inspired rider confidence, whether it was at high speeds on the track or cruising more sedately on the street. And more than one tester said he wouldn't mind box-stock racing on the OEM Dunlops (although they're available only from Kawasaki, not through the Dunlop network).

It's easy to understand why the K300s were so popular, because they never gave any cause for concern even at racing speeds. Through fast sweepers, the tires could be pushed hard and always gave ample warning before they started to slide. And if the turn was rough, they were flexible enough to absorb the undulations and prevent the bike from wobbling. The front tire also retained its shape well enough to prevent squirming even under the hardest braking. Acceleration, too, was handled easily by the K300s, evoking high praise from all the testers.

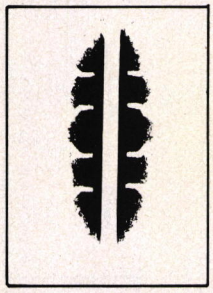
We left Laguna Seca surprised and impressed by the Dunlops' performance, and nothing on the street clouded those impressions. At lower speeds the GPz's steering felt a little sluggish, a result of tire design that favors stability over sheer ease of turning. The K300s also gave a good feel for the road, but on rougher surfaces felt a little harsh.

Overall, though, it was difficult to find fault with the stock tires. And although the K300s allowed neither the fastest laps nor the smoothest ride, they performed well enough throughout the test to impress everyone.

AVON



Front



Rear

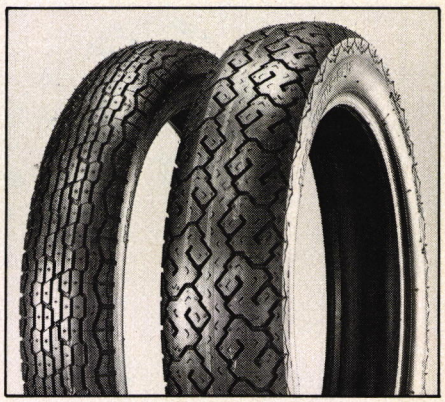
• The dark-horse candidates of the test were the brand-new Avon Venoms. The British-built tires were new to us, but allowed two riders to set their fastest times at Laguna, and a third rider to post his second-fastest time. The stopwatch had found an instant winner, but the riders weren't so sure. In setting those fast times, every rider noted that the Avons were less forgiving than many other tires in the test. They let the bike move off-line, especially where the track was at all rough. And once upset, both Avons squealed and slid, making the GPz difficult to position on the track accurately.

Even at street speeds, that same imprecise feel was part of the Venom's performance when riding through fast canyon sweepers. However, the Avons always delivered a plush ride on the freeway, without ever reacting strongly to rain grooves or other road irregularities.

The Avon's small-block front-tread pattern is a dated design that probably causes some of the tire's erratic high-speed behavior. The rear tire's unique narrow-slit tread set at right angles to a center groove was obviously another problem area, because as the high-speed miles increased, the soft-compound rubber began cracking from the pointed ends of the tread. That's when the Avons became even more erratic.

In general, this tire test places little importance on tire wear, but when it causes as rapid a deterioration in performance as shown by the Venoms, that wear is significant. While the Venoms offer rubber sticky enough for extremely fast lap times, their unforgiving nature and questionable useful service life make them a less-than-perfect choice for a street rider in search of high-performance rubber.

BRIDGESTONE



Front

Rear

• Bridgestone Mag Mopus tires are archetypal OEM rubber of the type fitted to almost half the bikes built in Japan. And as such, they've probably been the center of more sideways-in-turn-one stories than any other tires. But are those stories justified, are OEM tires the slidemakers that myths maintain?

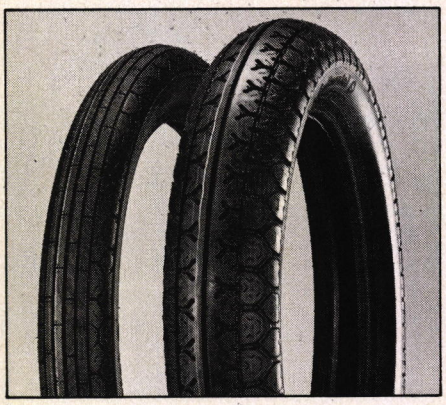
Our testing suggests that they're not. In fact, we pushed the Bridgestones as hard as we could and found nothing worth serious complaint. Neither tire felt as rigid as the stock Dunlop K300s, especially in high-speed turns, where the Bridgestones let the GPz move around and made apexes difficult to hit with precision. The tire's more flexible carcass also allows a little squirming at the front end under heaving braking. But even in riding ten-tenths around Laguna Seca, the minor wobbles and squirming were never a problem. They pushed lap times higher than with some of the more-specialized rubber, but the Bridgestones were always fast enough and predictable enough to be considered high-performance tires.

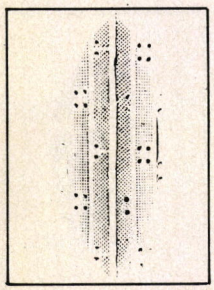
They also performed well on the street, where their soft carcass construction allowed the tires to absorb bumps and holes with ease. Both tires also refused to move around on freeway rain grooves or other road irregularities, but they made the GPz's steering feel a little heavy and sluggish. And while the sluggishness did prove to be a disadvantage for canyon racing, it made the bike feel less nervous and more forgiving on the freeway.

So while the Bridgestones never felt as if they had as much rubber on the road as some of the other tires in the test, they still worked extremely well and convincingly disproved many of the horror stories of OEM tires.

Continued

CONTINENTAL





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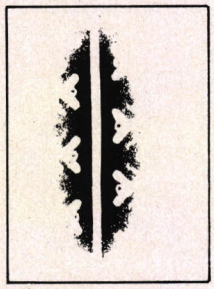


Rear

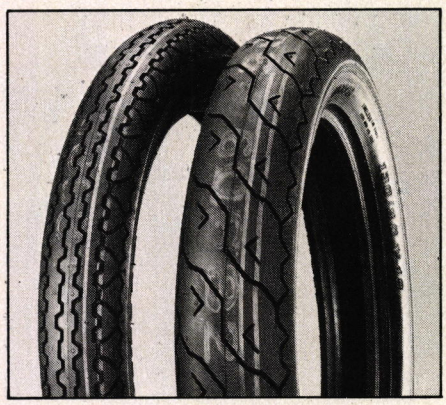
• Continental engineers conceded that the tire they supplied wasn't designed to meet the needs of our test. A new Continental, scheduled to be released in 1983, would better suit the requirements of the rider of a high-performance multi, they said. The Continental RB2 and K112 that we tested were designed years ago for BMW twins, when they were among the fastest bikes around. Comfort and high mileage were the original aims, so we weren't surprised to find the Contis out of their depth on the racetrack.

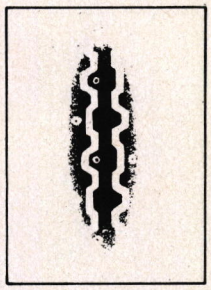
At extreme speeds and lean angles both tires squirmed as their soft sidewalls flexed, allowing the GPz to move off of its line. The rear tire also was hard-pressed to put all of the 1100's power to the ground, especially when the bike was leaned over. Enthusiastic use of the throttle made the rear end break loose, marking the gray asphalt of Laguna with left-behind rubber.

The same problems we experienced on the track also showed up on the street at less-radical speeds. Rather than squirming, the Continentals seemed to roll sideways, making the bike feel somewhat vague. And grabbing a healthy handful of throttle when exiting turns still got the long-lasting rubber spinning in response.

Continental's assessment of the tires' performance was accurate: They weren't built to handle 100-horsepower, 530-pound hyperbikes. Still, we expected to find some real advantages at more moderate speeds on the streets and freeway. But that wasn't the case. The Contis' block tread pattern caused the tires to react to any ruts or grooves in the road. Admittedly, both tires gave a plush ride, but it wasn't any better than with numerous other tires in the test.

DUNLOP





Front

Rear

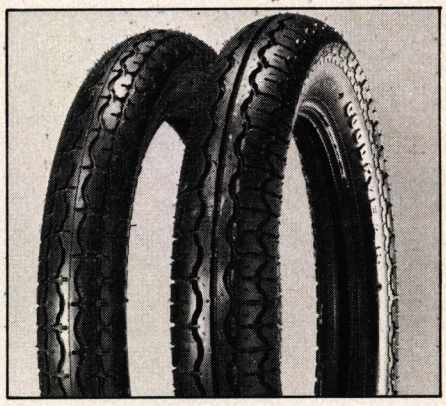
• You won't find a tire that looks the high-performance part more than Dunlop's rear Elite. It could almost be a roadrace slick with grooves cut in its rubber, but as we'd been warned, looks can be deceptive. The Elites fully lived up to their visual promise, however, with a racetrack performance that was difficult to beat.

Equally fast times were set by the Elites and the Avons at Laguna Seca, but while the Avons felt unpredictable, the Elites worked with clockwork precision. None of the testers could push them into a slide, and not even the fiercest acceleration seemed to break the rear tire loose. The GPz also could be leaned deeply into turns because the rear Dunlop's large diameter increased ground clearance. The large-diameter tire also increased the overall gearing, and some riders felt that faster lap times would be possible by returning the gearing closer to stock.

If anything marred the Elite's high-speed performance it was the front tire's tendency to weave slightly under heavy braking. Like some other race-oriented tires, the Elite's rigid carcass also induced high-speed wobble in rougher sections of track, though that was never more than a minor annoyance.

What took the edge off the Elite's overall performance was its harshness. It wasn't too noticeable on the track, but on the street every last ripple seemed to reach the riders' hands. This probably is caused by a combination of the tire's high weight and of a firm carcass design that allows excellent racetrack performance; but whatever the cause, the Elite's harshness gets tiring on the street. It also reduces the tire's secure feel in rough corners, suggesting that the Elite is more of a race tire than even its looks promise.

GOODYEAR



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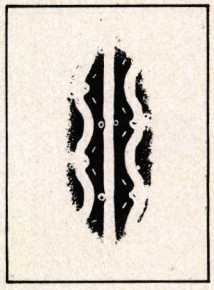


Rear

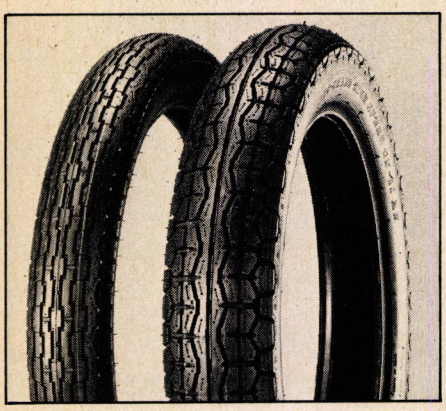
• After having Kenny Roberts under contract for years, you'd figure that Goodyear would have the knowledge to build a great high-performance motorcycle street tire. But if Goodyear does, that knowledge wasn't used to build the Eagles.

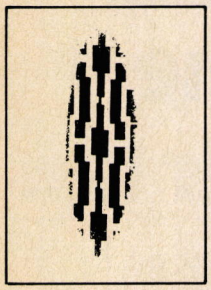
A few fast laps around Laguna Seca showed that the Goodyears' relatively hard rubber compound probably was better suited to high mileage than to high traction. Hard acceleration out of Laguna's slow Turn Nine had the rear tire spinning and moving from side to side. The limit of traction also was easily reached in turns, allowing the bike to slide regularly. Neither tire felt as if it had much rubber in contact with the ground, and the further the bike was leaned, the worse the problem became. The Eagles' soft sidewall construction also let the tires slide in high-speed sweepers, reducing rider confidence even at well below ten-tenths speeds.

Straight-line braking was the Eagles' strong point at the track. Both tires could be made to skid, but they never made the test bike weave. The same wasn't true when the Goodyears rolled across any ruts or grooves on the street, however. The bike wiggled on the freeway rain grooves and moved around on most road irregularities.

What the Goodyears did best was cushion the rider from even the harshest of road jolts. They consumed everything from the largest to the smallest bump and still give the rider some "feel" for the road. But that qualifies the Eagles more as touring rubber than as race-caliber tires for the cutting edge of high performance. And that's probably how the Eagles should be categorized, because even at moderate canyon speeds their limits are clearly discernable.

IRC

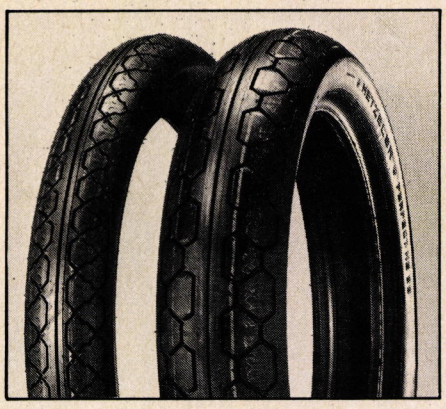




Front

Rear

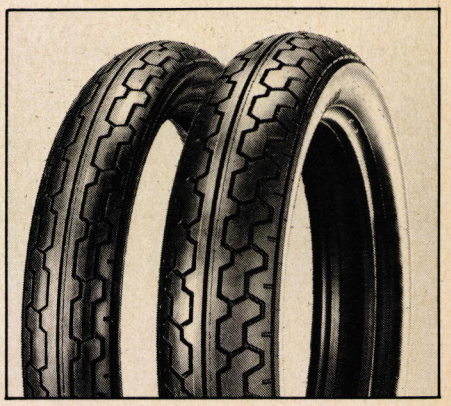
METZELER

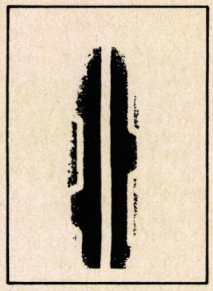


Front

Rear

MICHELIN





Front

Rear

• IRC's Grand High Speed tires don't look like they could live up to their name. Unlike most of their high-performance competition, the IRCs don't have large, rigid tread blocks. Instead, they use deep tread to break up the rubber surface, and most tire designers agree that using so many grooves makes for a flexible tire that will be hard-pressed to perform at speed.

But while these Japanese tires break all the high-speed rules they still perform quite well on the track. The most noticeable problem area was during heavy braking, when the tire's non-rigid carcass squirmed. In every other respect the IRCs were unspectacular, doing nothing badly—but also doing nothing to impress any of the riders.

Both tires failed to inspire confidence at speed, and none of the testers felt that they could push as hard as with some of the other tires. But there were also no reports of high-speed wobbling or weaving, and there was no sudden loss of traction while the bike was angled over in a turn.

There weren't any real problems on the street, either, although the IRCs did make the GPz's steering feel a little slow and heavy at lower speeds. But as with other tires that increased the GPz's turning effort, the IRCs netted a gain in straight-line stability. There was also very little reaction to freeway rain grooves, and no negative reaction at all to larger ruts and grooves unless they crossed the road at right angles; then the IRCs transmitted some harshness.

All of which makes the Grand High Speed IRCs perfectly adequate middle-of-the-road tires capable of doing almost anything you could ask of them, but not doing any of those things exceptionally well.

• Perfect tires are impossible to find, but the soft-compound Sport Version of Metzeler's Perfect ME99 and ME77 came closer than most. During the test they performed exceptionally well with only one major drawback: Their extreme low-profile design reduces most bikes' ground clearance. We could scrape metal while using any of the other tires, but metal-to-pavement contact usually occurred when the tires were close to their limits. On the Metzeler-shod GPz we could grind away at the Kawasaki's mag cover and still have plenty of rubber to spare.

There was no bobbling or shaking in turns, no matter what the speed, and the Metzelers provoked some very hard riding. But that was when the ground-clearance problems got worse. Riding hard with the Metzelers involved considerably more hanging off than with the other tires, due to the lack of ground clearance. But no matter how far we hung off we couldn't find the limit of adhesion; the bike's engine cases ground down first.

Ground clearance was also a problem on the street when the corners got tighter and the riding got faster. But what we lost in turns could be made up in braking. That's where the Metzelers were always stable and provided a good feel for the road. On surface streets the Metzelers' rigid construction transmitted more than average harshness through to the rider. The only other unwanted habit was the Perfects slight reaction to rain grooves; everything else passed beneath them without fuss.

That's why the Metzelers are close to perfect. They look good, with large tread blocks on a wide, low-profile carcass, which does everything to make the bike go fast—except keep it from scraping in turns.

• Rough surfaces on the racetrack had an unsettling effect on Michelin's M48 rear tire. At high speeds, the rear tire had an unnerving tendency to slide or wobble once upset by the road surface. It also could be broken loose when accelerating hard out of a turn with the bike leaned over, but it provided good traction when the bike was in an upright position.

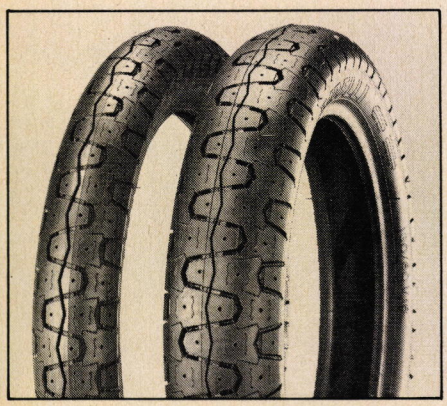
The front tire worked much better than the rear, and was called the best in test by one rider. It worked well during heavy braking, with virtually no squirming, although three riders commented that the rear tire seemed to dance slightly in panic stops. But despite any problems with the rear tire, all the testers felt positive about the Michelin pair. The tires felt taut and secure at speed, and seemed to have almost limitless rubber when the bike was leaned over for turns.

The Michelins inspired even more confidence on the street because we never approached the extreme high speeds that unsettled the rear tire at the track. At fast street speeds the rear tire worked perfectly. In fact, the Michelins were so good and neutral on the street that it was sometimes difficult to tell what they were doing. Steering response was light and quick, and both tires seemed to run on an invisible rail in corners. And just as they did on the racetrack, on the street the Michelins always seemed to have lots of rubber hugging the pavement.

If your local freeways have rain grooves, you'll notice a strong, almost slow-motion reaction to them through the Michelins and you'll also sense a slightly above-average harshness. But that's all that will spoil your street riding as long as you don't assault the canyons at full-on roadrace speeds, especially the ones with less-than-smooth pavement.

Continued

PIRELLI



Front

Rear

• Only one company recommended that we fit a rear tire to the front of the Kawasaki: Pirelli. We followed instructions, and fitted a 3.50V19 Super Sport up front with the directional arrow rotating backwards. And strange though it sounds, it worked; the Phantoms were the only tires that didn't display *any* bad habits throughout the test. After days of testing, not one rider had a negative comment about them on the track or street.

Riding within the speed limit, both tires made the GPz feel very responsive without producing any twitchiness. They also didn't react to ruts or rain grooves, and managed to cushion out holes and bumps to give a smooth ride. At higher speeds the Phantoms were equally impressive, giving a sure-footed feel that inspired confidence. The bike could be stuffed deep into turns without any problems with cornering clearance. We also didn't worry about losing traction, because the Pirellis always gave plenty of warning before drifting—and then, it was always a controlled drift. Which is not to say that it was easy to reach that limit even around Laguna's fast sweepers. That's why two riders said the Phantoms felt like racing slicks and the other two said they could push harder with the Pirellis than with anything else—and brake harder than with most tires without any squirm at the front.

For all this praise, the Phantoms didn't set the fastest racetrack times, but they were very close. What's more important is that everyone was fast on the Pirellis; they were consistently good. It didn't matter whether we were hanging off in Turn Seven or cruising the freeway at 55 mph, the Phantoms always worked well, which has to be the mark of an excellent high-performance tire.

SWALLOW

Front

Rear

• Swallow's H-rated entry in the CYCLE GUIDE test is a low-cost set of tires that bear a striking resemblance to Dunlop TT100s. But knowing that low price and good looks don't of themselves make a good high-performance tire, we weren't surprised to find that the Swallows didn't work like any TT100s we'd ever ridden on. In fact, the racetrack soon showed that the Swallows couldn't rightly be grouped with the other entries as high-performance rubber.

At speed, the Swallow's soft carcass construction (partly compensated for by the unusually high inflation pressures recommended for on-track use) allowed the tires to move around a lot when the Kawasaki was angled into a turn. Both front and rear tires let the test bikes wallow and wander enough to make apexes almost impossible to hit with consistency. If a heavy handful of power was applied while exiting a turn, the rear tire could be made to break traction easily, and not always with warning.

Heavy braking also showed that the Swallow's squirming wasn't limited to turns. With brakes on hard, the Kawasaki squirmed from side to side and provided the most exciting moments during panic stops.

The redeeming feature of the Swallows was that they provided a cushion-soft ride on the street. Nothing ever got through to the rider, not even a feel for the road. Unfortunately, the Swallows reacted badly to ruts and rain grooves. Both ends of the bike moved around on any grooves, which detracted from the tires' street performance. With so many points against them it's not difficult to understand why all four testers agreed the Swallows couldn't be considered in the same category as the other test rubber.

AND THEN... THERE WAS ONE:

And The Winner Is...

Sticking out our necks so you won't have to.

BY DAVID DEWHURST

Yes, there is a winner, but more importantly, there aren't many losers in CYCLE GUIDE's high-performance tire test. Of the 11 sets of tires we pushed through the high-speed wringer, only three were not up to the standards we set. Continental's Twins, Goodyear's Eagles and the Swallows all are built with flexible carcasses and hard rubber compounds, and are better suited to comfort and high mileage than to outright to-the-limits street performance.

But the remaining eight sets of tires all can be considered winners; they all matched up to our challenge-at-speed. And of those eight, three were OEM-type tires. The Bridgestones and IRCs ranked almost evenly on the track and street, finishing only a fraction off the winning tire's pace. What distanced them from the absolute top of the heap was a greater design consideration for comfort and stability. Both sets of tires displayed a slightly slower response to rider input than some of the higher-ranked tires, but not enough to detract too much from either's sporting aspirations. The greater turning effort each required also made the GPz feel as stable as a Southern Pacific boxcar. And the compliant ride each afforded didn't severely limit high-speed performance on the street or track. Both the Bridgestones and IRCs worked well within the specialized parameters of our test, even though they were designed for a much broader range of uses.

If we awarded a prize for the biggest up-

set of the test, it would have to go to the OEM Dunlop K300s, the standard tires for a GPz1100. The 300s originally were intended only as a baseline, to be used as nothing more than a level of performance to compare the other tires to. But their amazing performance forced us to include them in our test. As the miles rolled on, it became more and more difficult to separate the stock Dunlops from the more-specialized rubber. And if that—as well as the rides turned in by the Bridgestones and IRCs—doesn't dispel once and for all the notion that OEM tires are replace-at-once items, nothing will.

But when it came right down to the cutting edge, to the extreme high speeds and wild lean angles that we explored during the test, the specialized rubber came out ahead. That should come as no great surprise, since the top five finishers in our tire test were designed from the outset for performance at speed, with lesser concern for factors such as cost, comfort and long life. But what might surpirse you is how close those top five brands are and, more importantly, just how very good each set of tires is.

Choose any set—the Avons, Dunlop Elites, Metzelers, Michelins or Pirellis—and you'll have tires that can outperform most riders and most bikes—with rubber to spare. In fact, these tires are so good that they're likely to uncover glitches in your bike's handling and brakes that you never noticed before—but only because they'll let you push your machine harder and faster than you ever thought you could.

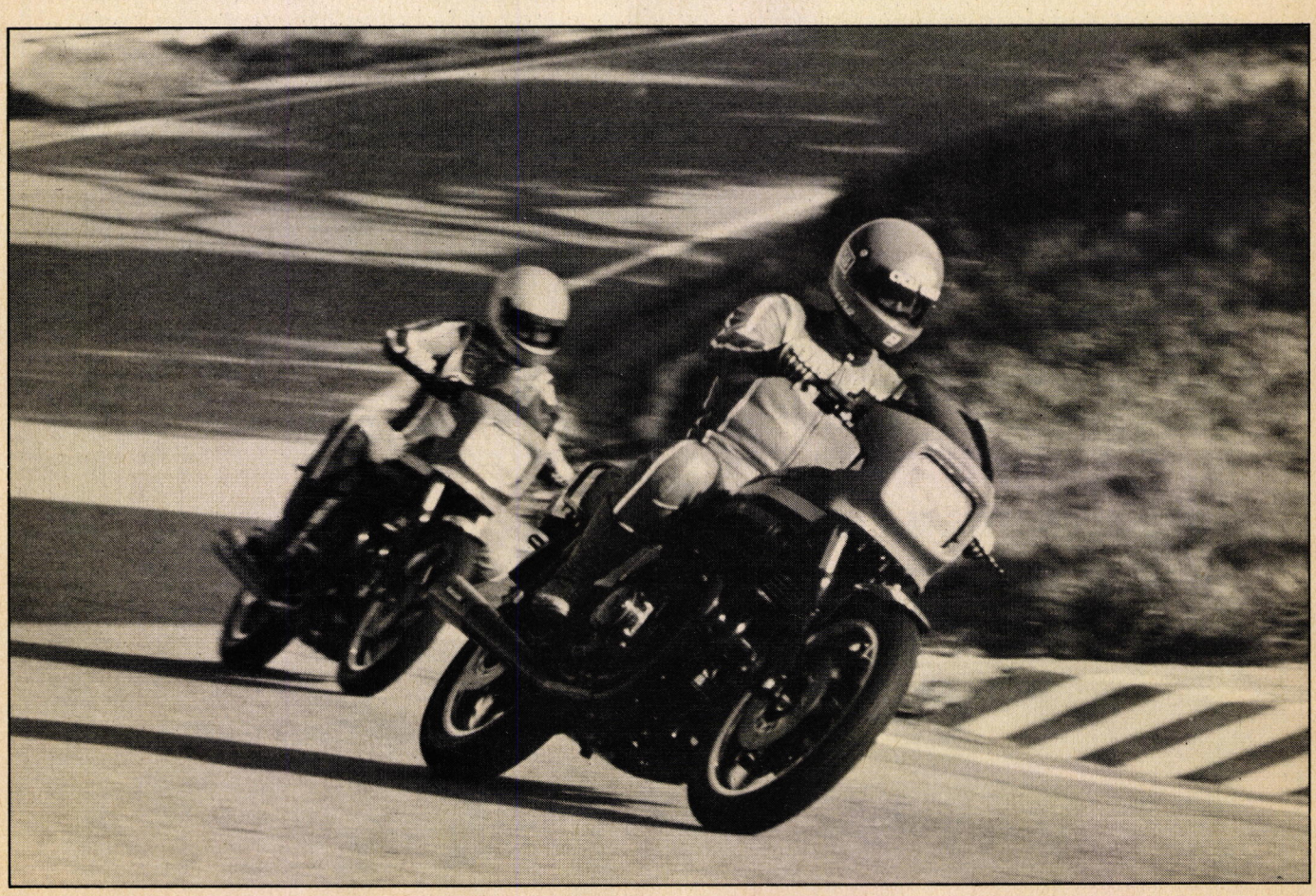
Choose the Metzelers and you'll be well rewarded, but if your idea of street performance includes high speeds and sharply tilted horizons, you might have to modify your riding style—or your motorcycle. The Metzeler's low profile robs cornering clearance, and throughout the test we had to hang off more with the Perfects than with the other tires to keep from radically resculpting the underside of the GPz. Everything else about the Metzelers won the respect of all of the testers, however. The Perfects' ride-on-rails precision and confidence-inspiring feel were almost enough to make them the top tires, but the ground-clearance problems kept them only close.

Michelin's beautifully molded 48s were also right up near the top, but the rear tire's imprecision at extreme speeds kept them out of the top spot. It's important to note, however, that at fast canyon speeds the rear tire's shortcomings were much less pronounced, and the Michelins are still excellent street tires.

Had the stopwatch been the sole arbiter, there's no doubt that Avon's Venoms would have come out first. But the scorching pace they allowed was accompanied by an unforgiving ride that didn't generate much rider trust. And the soft rubber compound that helped make fast lap times possible for the Avons started breaking up under the strain; that, more than anything else, relegated the Avons to one of the runner-up places.

We might have declared the Dunlop Elites the winners—if the entire test had been conducted in the nine turns of Laguna Seca. The high speed and secure feel the Elites provided around the track make them an excellent choice to go with full leathers and an AMA license, but you pay the price on the street, where the Elites proved uncomfortably harsh.

Which leaves, if you've been keeping track, the Pirelli Phantoms alone in victory circle. The Phantoms contributed to lap times a tick of a stopwatch slower than the Avons on the track while still yielding a ride nearly as comfortable as the OEMs. They worked in heavy braking almost as well as the Metzelers, cornered in the same league as the Dunlops, and overall excelled in every area of street performance, without any significant tradeoffs. As a result, we have no hesitation in declaring Pirelli Phantoms the finest high-performance street tires money can buy. ●



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GUIDE LINES

Cycle Guide's Monthly Chronicle of Scoops, Tips, Rumors and Hard Facts

BY JOE KRESS

COMING SOON

• The first 1983 Harley is ready. The XLX-61, a new-model Sportster, is a stripped-down, Sixties-style streetfighter. The 1000cc vee-twin has a higher 8.8:1 compression ratio, made possible by a vacuum-switch-controlled, two-stage ignition advance. The system uses a carburetor-mounted vacuum sensor monitoring throttle opening as it relates to engine speed to retard the ignition timing during low-vacuum, low-rpm operation. Other engine changes on the new XLX include a larger-diameter, less-restrictive exhaust and a return to the old-style, oval air filter.

The frame on the new bike is the same new-for-'82 all-tube unit, but the XLX has been pared down to a claimed 486-pound dry weight, fully 20 pounds less than a standard Sportster. The cast wheels, upper triple clamp, rear fender support, rocker boxes, cam gear covers, sprocket cover and the primary chain covers all are bead-blasted aluminum, with a silver metallic, semi-flat finish. These parts contrast with the gloss black on the frame, peanut tank and fenders. The new exhaust system is flat-black.

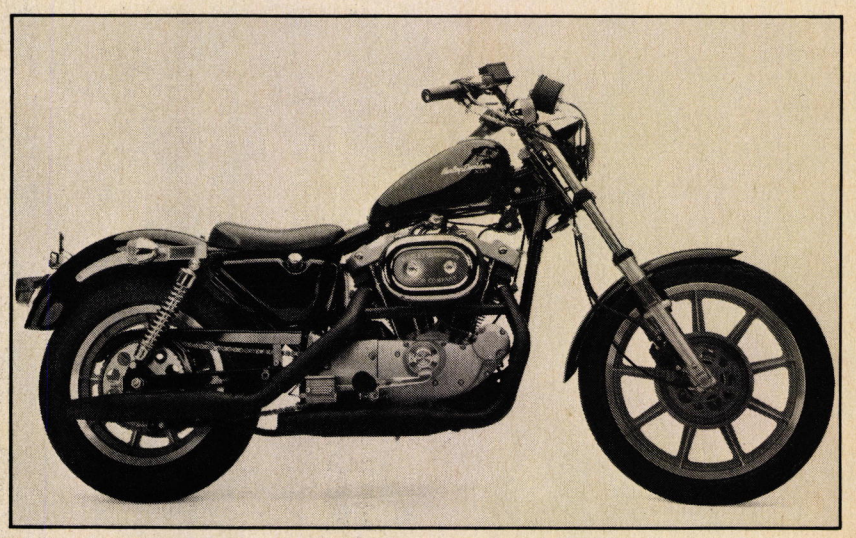
The XLX-61 is a stylistic return to the basics; instrumentation includes a speedometer—period. The handlebar is flattrack style, finished in black, and the bike is a solo; passenger pegs and a pillion are optional.

• Honda's long-rumored VT250F now is available—in Japan. The 248cc, 90-degree, liquid-cooled vee-twin pumps out a claimed 35 horsepower at 11,000 rpm. Inside the DOHC, four-valve heads the compression ratio is set at 11.0:1.

The VT250F has new style ComStar wheels, in 16- and 18-inch sizes, along with a dual-piston, enclosed-disc brake on the front. The chain-driven rear wheel is suspended by an air-assisted Pro-Link system, and air-assist is used in the fork as well. For now, the VT250F is slated for sale only in the domestic market, but the bike just looks too inviting to stay that way for long.

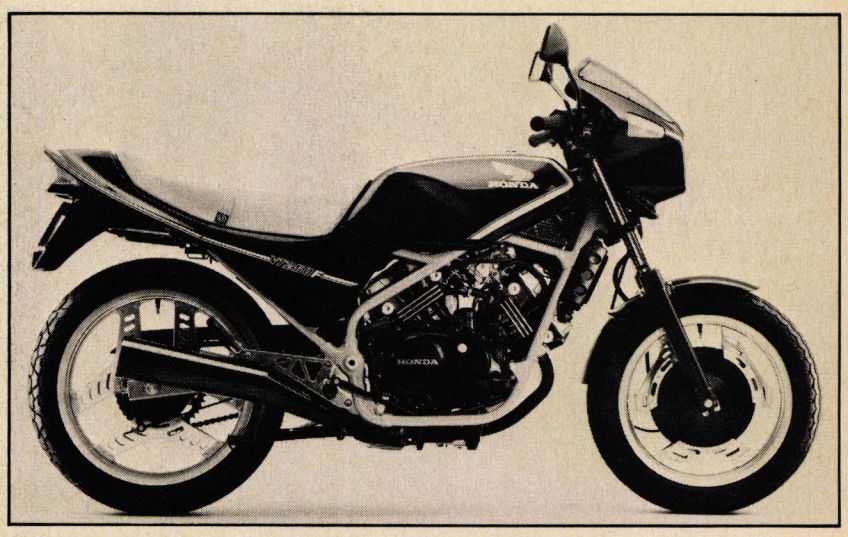
• Another recently introduced Honda is the MBX50, a small bike with many features normally associated only with full-sized machinery. The two-stroke single is liquid-cooled, and uses a six-speed transmission, with chain final drive. Rear Suspension on the MBX is Honda's Pro-Link, and the front brake is a dual-piston disc.

More big-bike flavor comes with the aluminum ComStar wheels and the tank/seat/tail section treatment. There is also a fairing-like housing over the headlight, and an air deflector on the front fender.



Harley-Davidson goes back to the basics on its first '83 model

Starting off with a new, firebreathing sprinter—the Sportster XLX-61.



Honda finally releases its quarter-liter vee-twin rocket

But it's no help to us; the bike is for Japan only.

• Zundapp has introduced a new small street machine as well. With the German streetbike displacement minimum now raised to 80cc, Zundapp has released its K80, another small bike with a big-bike look. The K80 has cast wheels, a disc-type front brake and even mounts a quarter fairing.

• Scooters anyone? Honda has two new ones out for the domestic market, both 50cc. The Lead 50 Super DX is powered by a five-port two-stroke engine, and has a vee-belt-matic transmission. Its five-horsepower engine has electric starting, and there is an 80cc version also available.

Honda's other new scooter, the Spacy, is claimed to be the only four-stroke scooter currently in production. The five-horsepower single has a three-speed automatic transmission, with both electric and kick starting. The Spacy also has a halogen headlight, a liquid-crystal digital

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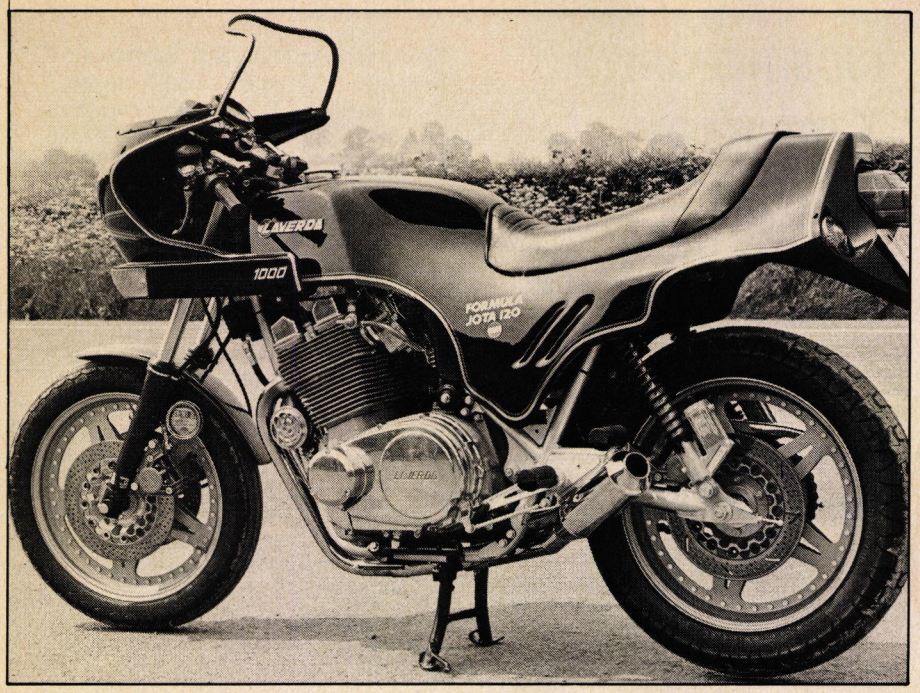
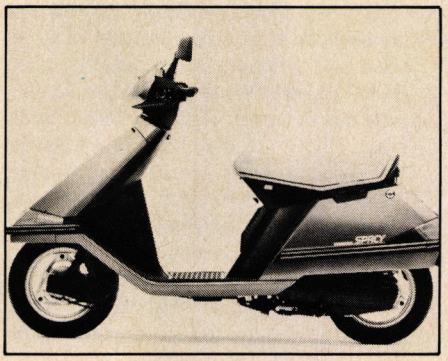


Slater Brothers is at it again

The newest Laverda gets the treatment.

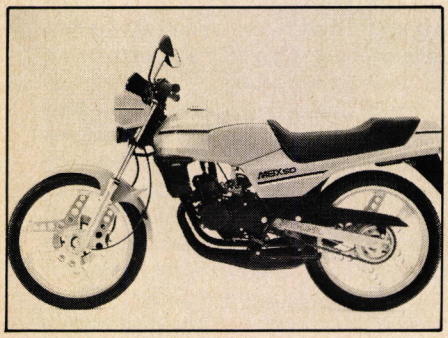
Honda introduces two new scooters

The Lead Super DX is a two-stroke.



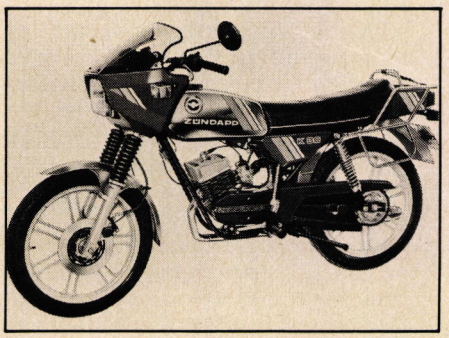
The other new Honda

With automatic and a four-stroke.



Something for the smaller set

The MBX isn't big, but it's no toy.



German displacement minimum was raised

And Zundapp answered with the K80.

speedometer and an "Economonitor" gauge to keep the rider abreast of engine efficiency.

• You didn't think that we were going to leave off with a pair of scooters, did you? So how about a Laverda? A Slater Brothers Formula Jota 120 to be exact. The bike retains the engine, frame and suspension of the standard Jota 120, but in Slater Brothers tradition, specialty parts abound. There's a three-into-one exhaust system, with reworked carburetion to match, and draped over the framework is a one-piece tank/seat/tail section and matching fairing. The Formula Jota 120 uses the latest Brembo Goldline brakes; they're triple drilled discs, each with a 280mm diameter. The wheels on this special-order machine are gold-tinted Astralites, especially made for this Slater Brothers project. The prototype bike is complete and tested; orders are being accepted for production.

–*Joe Kress*

Continued

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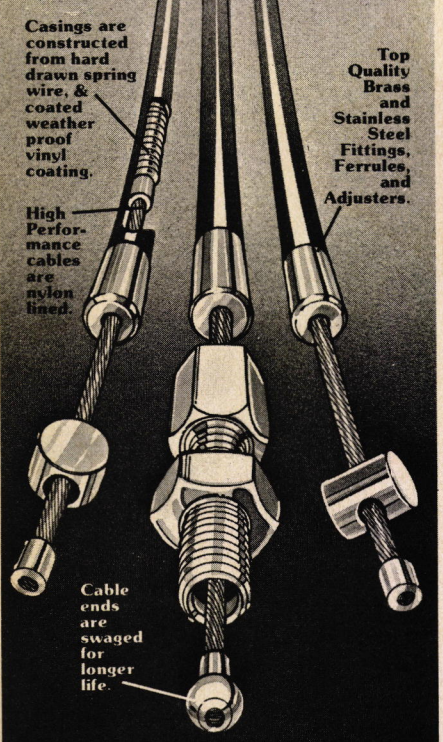
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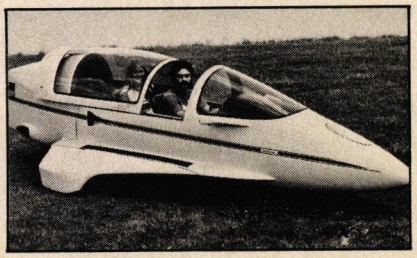
RIDE/REPORT:

Tomorrow Corporation's Autocycle

Futuristic, fuel-efficient transport.



• *Landing gear down, yaw damper on, flaps–check, cabin pressure–check, all systems–check. Request permission to depart runway I-80.*

As you taxi down the runway, your mind is on the world around you, and that world responds. And that, of itself, is unique, because on the Highway World of the '80s, the esoteric has become mundane. Ferrari 308s are so ubiquitous they hardly draw a glance. Turbocharged, fuel-injected motorcycles are fast approaching the norm. Not so this little machine. The Autocycle definitely will not escape the consciousness of anyone in the vicinity. Whether the vicinity includes a secretary in her Toyota or a Highway Patrolman on his Kawasaki, the Autocycle *will* be noticed.

But the main engineering goal of this project–the Autocycle–was not to satisfy any base exhibitionistic urges, or even to supply high-speed performance–much as the tiny vehicle appears capable–but rather to achieve the best possible fuel-efficiency from a two-seat sports vehicle. And the Autocycle's design engineer, James Bede, seems highly qualified to reach that goal.

After earning a degree in aeronautical engineering, Bede began his career as a performance engineer at North American Aviation, assigned to the FJ4 and A3J jet aircraft projects. His own corporation, Bede Aviation, was founded two decades ago, and three world records belong to aircraft which he has designed. With the Autocycle, Bede now has turned his attention to the ground–and to fuel-efficiency on two wheels.

Wind resistance has a tremendous effect on both speed and gas mileage. To minimize the Autocycle's wind resistance, Bede designed it to have a frontal area of just 8.1 square feet–and more importantly, a remarkably low .092 drag coefficient. What this means is that the Autocycle needs only 5.4 horsepower to travel at 55 mph, and a mere 10.5 hp to breeze along at the ton.

For a testbed, Bede and his crew purchased a used Honda CB360, one with 11,000 miles on the odometer. To achieve results typical of what the average enthusiast might produce, they restricted engine work to a simple tune and service. Given these parameters, mileage figures returned from the prototype Autocycle were 102 mpg at 55 mph, and 73 mpg at 100 mph. All testing was carried out at the Transportation Research Center, near Marysville, Ohio.

In building an Autocycle, Bede requires a motorcycle to use as a starting point. After cutting the bike's frame in half forward of the engine, a post made of two-and-one-half-inch-diameter tubing is welded vertically to each section of the frame. A five-and-one-half-foot-long section of large-diameter aluminum tubing is then bolted to the vertical frame posts forming a backbone which runs along the bottom of the chassis. This aluminum-tubing backbone is 2024-T3 material, and with a diameter of six and one-half inches and a .220-inch wall thickness, it should be quite strong.

The suspension and braking systems used are the standard equipment for whatever motorcycle was used as the base. The only change made is the addition of air caps to the front fork if it already doesn't have them; this modification is deemed necessary to cope with the increased aerodynamic downforce fed into the chassis of the Autocycle. Controls in the vehicle are arranged car-fashion, with a steering wheel connected to the fork assembly through a gearbox and push-pull rod mechanism. The clutch, throttle and rear brake are operated by pedals laid out the same as those of a standard automobile. The Autocycle's front brake is operated by a U-shaped handle mounted behind the right side of the steering wheel. A shift lever mounts on the right side of the cockpit and connects to the transmission via cable.

The bodywork on this jet-fighter-like landstrafer is made up of laminated fiberglass for the main fuselage, while the nose-cone and tail-section are manufactured from RIM (Reaction Injection Molding) urethane, similiar to the soft bumpers found on many of today's autos. To absorb impact energy, both the nose-cone and fuselage sides are honeycombed with a unique combination of urethane and empty beverage cans. The windscreen and cockpit cowling are plexiglass, the same as used in lightweight aircraft.

Complete production Autocycles are expected to come with Suzuki 250 or 305cc engines or Honda 450 automatics. The top-of-the-line model will use the new Honda V45 Magna chassis.

Flight plans can be obtained from the Tommorrow Corporation, 440 Hunter's Hill Dr., Chesterfield, MO 63017. *–Pat Eagan*

HARD CASH

• The Hesketh, a bike that really never got off the ground, now appears doomed. Sources in England report that the company is in receivership, a move requested both by the Hesketh officials and officers of Barclays Bank. Meanwhile, officials at Hesketh hope to sell the company, which has amassed a debt of 1.5 million pounds. Current assets are listed at three-quarters of a million.

It was reported that Hesketh needed only to sell 800 motorcycles a year to make a profit. With the company now in receivership, and its future uncertain, the 100 bikes that already have been sold might well become collector items.

• While a production run of just 800 units might have been enough for Hesketh to turn a profit, recently released figures for the Japanese manufacturers tell a different story. Last year, Honda, Yamaha, Suzuki and Kawasaki combined to produce a reported 6.5 million motorcycles, a 111-percent increase over the year before. The numbers break down at 2,578,321 units from Honda, 2,029,244 from Yamaha, 1,350,963 from Suzuki and 521,333 units from Kawasaki. Astounding as these numbers are, equally impressive is the fact that of this total production figure, 4,362,250 of the motorcycles were exported. And that export total includes 89 percent of all the over-250cc models produced by the Japanese.

• Production figures like these would seem to paint a rosy picture for the motorcycle industry this year, but as we all know, that isn't the case. While the production numbers are up, sales are way off. Honda reports sales 11.7 percent lower than the same time last year, and Suzuki is 23.2 percent off its 1981 pace. Yamaha is down 30.4 percent, while Kawasaki sales are 37.9 percent lower than the same period for 1981. America's Harley-Davidson is doing no better; its sales are 34.1 percent down from this time last year.

• A few months ago we reported that Yamaha had purchased the Sanglas motorcycle works, and by so doing, was able to circumvent a Spanish and European Economic Community (EEC) law prohibiting motorcycles from being imported in numbers greater than the amount of bikes exported. It now appears that Honda has done the same thing, although it didn't buy a Spanish company to accomplish that end. Cosmopolitan Motors, the U.S. importer for Montesa, recently announced that Montesa has entered into a cooperative agreement with Honda, whereby both companies share technologies and *commercial cooperation* in the Spanish and international markets.

• As you already have read, 1982 is not one of the better years on record as far as motorcycle sales are concerned. But Honda of Great Britain can't be faulted for not trying; in addition to price cuts and rebates to make a motorcycle purchase more attractive, Honda dealers also will secure low-price insurance for motorcycle buyers, through a placement network called Hondacare. The Hondacare program also provides an extended warranty plan and a form of trip insurance, should your new Honda break down on the road. The entire Hondacare concept is very similar to services offered by the auto industry for years.

• And speaking of the British, the English Army used Can-Am motorcycles juring the Falklands War, but unfortunately not in numbers sufficient to stave off financial troubles for that small company. According to reports from Europe, all the inventory and equipment of the Can-Am Research and Development Department recently were auctioned off, and Rotax, the Austrian builder of Can-Am engines, no longer is producing for that Canadian manufacturer.

• On a closing note, with information from this side of the Atlantic, the Motorcycle Safety Foundation, based in Linthicum, Maryland, has announced the availability of financial assistance for work in motorcycle safety research. The grants, which range up to $1250, are offered to masters and doctoral degree candidates, and university faculty members, doing work in specific areas of motorcycle safety. Proposals should be submitted directly to the Motorcycle Safety Foundation. *–Joe Kress*

FEDERAL CASES

• For the first time since March of 1979, there are no legal restaints keeping motorcyclists off the roads of St. Louis' city parks. Because of an overwhelming vote of support by the Board of Aldermen, Mayor Vincent Schoemehl, who sponsored the original bike ban for St. Louis' parks, was compelled to sign into law Board Bill 6, an outright repeal of the ban. Had Schoemehl chosen not to endorse the bill, it would have become law anyway, without his signature. Additionally, an emergency clause allowed the measure to become effective the same day it was approved.

• In a side note to the repeal of the motorcycle ban in St. Louis, Gary Winn, the AMA's manager of legislative affairs, stated that working within the system often produces far better results than could any adversary action, such as lawsuits or civil disobedience.

Said Winn, "Working with the (St. Louis) Board of Aldermen, we accomplished in some seven months what we were unable to do during two and a half years in the courts." He concluded that, " . . . an adversary position is a last resort, compared to what can be done with a positive attitude and a clear plan of action."

• A clear plan of action has resulted in new laws covering motorcycle rider education in three states across the nation. In South Dakota, HB 1206 calls for an increase of $1.50 in motorcycle registration fees, but the money collected will be used for the administration of that state's rider education program.

In Minnesota, the recently ratified HB 1025 will increase the fee for a new motorcycle license by $6, and renewals will be increased by $4. The money raised, estimated at $300,000, will fund a rider education program, along with additional programs aimed at educating the general public about motorcycling.

Washington's newly enacted SB 4692 also

Continued

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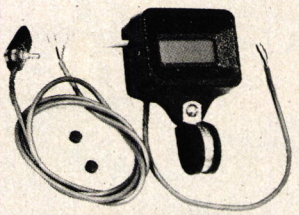

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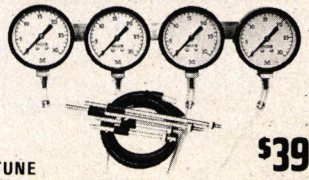

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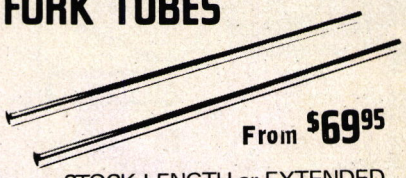

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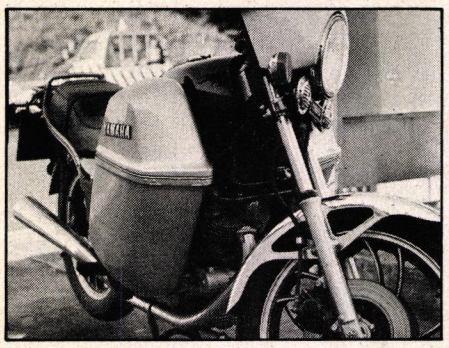
creates a motorcycle safety education fund; $1 from all initial motorcycle examination fees, and $1 from subsequent renewals, provide the money. The new law also calls for the formation of an advisory committee to assist the director of licensing in starting the rider training program.

- And as far as licensing is concerned, Florida is one of only five states that do not require a separate license for motorcycle riding. And because Florida bill HB 853 has died in committee, that situation will not change. Also killed in committee was SB 318, a combination license and helmet law for Florida.
- Meanwhile, the Indiana legislature, with its pasage of SB 88, has moved in the opposite direction from the Florida lawmakers. With the adoption of its new law, Indiana has extended, through June, 1983, the requirement for both a written and a skills test for a motorcycle license.
- California requires a separate license for motorcycle operation, but it seems that state employees who ride bikes don't get to enjoy the same privileges as employees who drive cars. Senate Concurrent Resolution 74, introduced by California State Senator Alan Robbins, seeks to change that situation. The measure, if passed, would see that state employees are reimbursed for the business use of their motorcycles, just as car owners are reimbursed for the use of their autos.
- Finally, the AMA, in its most recent meeting of Trustees, didn't implement a reimbursement plan for its members, but it did approve a proposal by its government relations staff. The proposal was for the association to take a stronger position against excessive noise from off-road bikes in all AMA sanctioned events. As of January 1, 1984, all motocross bikes, both professional and amateur, will be required to emit no more than 100 decibels, while enduro, ISDE and trials machines will have a limit of 98 decibels. In January of 1986, these levels drop down to 98 for the motocrossers and 96 for all the other classifications. Noise testing will be done by the SAE 1287 method, at 20 inches. *–Joe Kress*

RUMORS

- Do you think there's been too much emphasis on pure sport bikes lately? Well, if your interests lean toward long days, longer distances, fairings and luggage, 1983 might be your year. From gleaned bits and overheard whispers, it's beginning to sound like the buzzword for '83 could be Tourer. And not only fully equipped, turn-key machines, alá the Aspencade, but a heavy dose of factory accessories as well. Parts aimed at the do-it-yourselfer with a mind to turn his standard machine into a long-distance mount.
- And look for some different thinking in the design and application of those accessories, too. While snooping around the back garages at Yamaha R&D, one of our spies uncovered a really strange touring setup mounted on an XV920. While clearly European in concept, don't be surprised to see it here, too.
- We already have Suzuki's 1100GK Tourer, al-



Accessory luggage from Yamaha

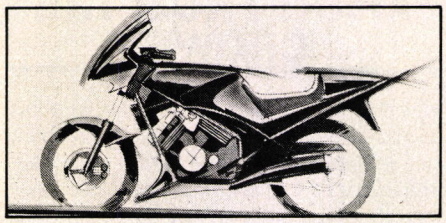
Maybe Euro-style bags for the U.S.

though in a somewhat bare-bones state. Bare-bones meaning no electrics—as in radio, C.B. and the like. Look for that situation to change.

• Our sources also tell us that radios and tape-decks won't be all that Suzuki trots out for touring, either. Click your mind into vee-four mode and think big like 1100cc.

• And while you're thinking touring vee-fours, think tuning forks, too. And don't be surprised to see Yamaha pull one of these engine configurations out of its hat.

• OK, so maybe full-dressers don't exactly light your fire. Not to worry. Our snoops say that '83 might shape up also as a banner year for hot-blooded 750s. They're talking about three-quarter-liter Superbikes for the street.



A new look for the Honda vee

And you'll notice it's chain drive.

• Honda's V45 Sabre woke up quite a few people in '82, but to some, it lacked just one thing—chain drive. Well, reliable word has it that for '83 a traditionally chain-driven version will be in the lineup as well. Also, look for some new—and far from traditional—styling licks to show up on the bike, too. Like intake scoops and a hi-tech fairing.

• Kawasaki already has a strong chain-driven 750, its GPz. But don't be surprised to see changes on this bike for '83. There's been some talk about fuel injection for the middle-sized GPz, which now sounds dubious. But if our sources are right, get ready for Uni-Trak, same as on this year's GPz550.

• And don't for a minute think that Suzuki will be left out of this battle of the blazing 750s, not when it already has a hot contender in the wings, charged up and ready to go. Chain-drive 750 Katanas with TSCC, four valves and all, are available in the overseas markets right now, and smart money says that we'll get to see them for '83.

• Let's talk boulevard bikes for a minute. Now, the 920 Virago *should* have been a winner in '82, but it wasn't. Well, Yamaha insiders tell us about a restyled 920, doing away with com-

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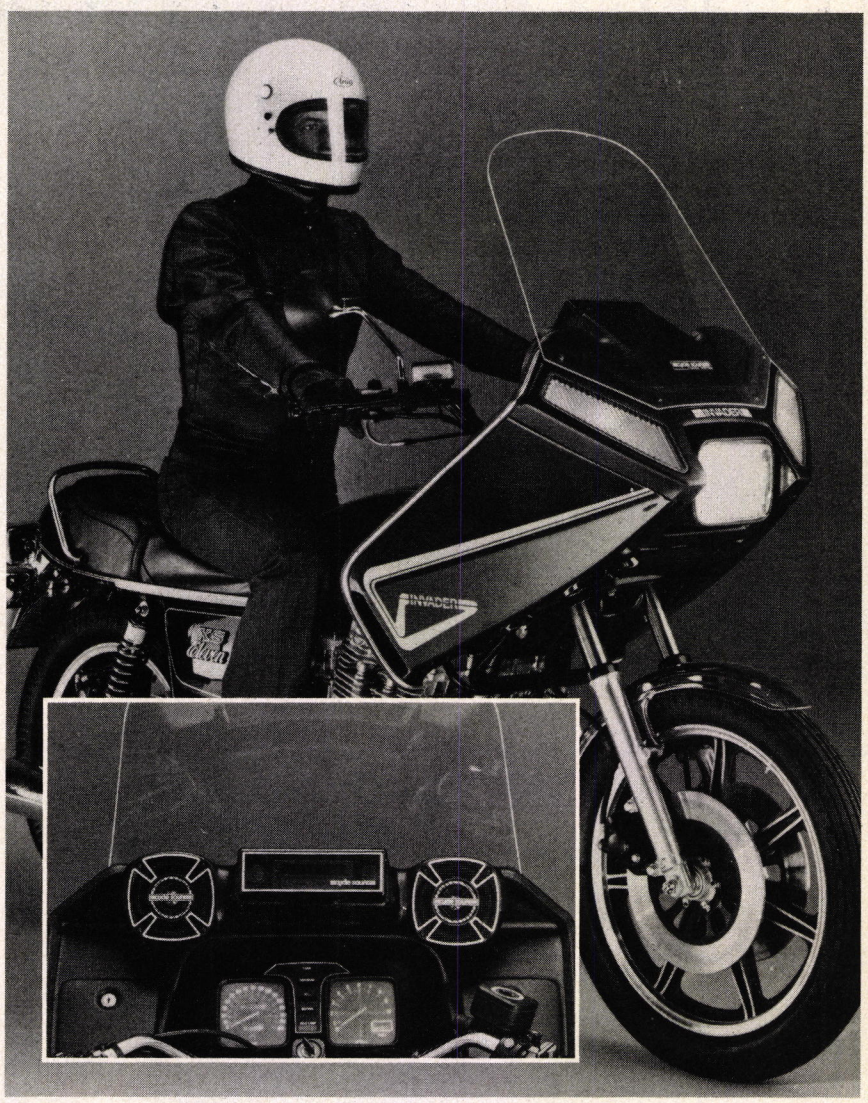

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puterized instruments and the like. They tell us to get ready for a bare-knuckles machine, a traditional street cruiser.

• While we're on the subject of street cruisers, we keep hearing from our lookouts near Honda that Number One has a new 650 Custom. And the engine for this bike is the most interesting part of the story; all our sources tell us it's a vee-twin.

• Yamaha's newest vee-twin, the Vision, has undergone a facelift for '83. At least that's the word we get. Our informant hints at a look more Seca than Star Wars.

• Here's a somber note. Our eyes and ears in the industry test labs tell us that the EPA is moving in on motorcycles. These sources all but confirmed the presence of charcoal canisters on '83 machinery, and go so far as to predict catalytic converters for 1984. This is one rumor we hope proves false.

• And this is a rumor we hope pans out. Our man in Japan tells of a new Suzuki sighting. He swears that he saw a mid-sized sport bike being tested, and he keeps talking about a single seater. Also, we hear that it doesn't look a thing like a Katana, but it does have parts like an anti-dive fork, four-into-one exhaust, oil cooling and TSCC Four-Valve emblazoned on the side of the engine. Wait for more word on this one—we are.

—Joe Kress

APART FROM THE CROWD

• Harley-Davidson has made no secret about its recent personnel cutbacks; the company has released both salaried and hourly wage employees at all of its plants and its headquarters office. But if you worked at H-D and your last name was the same as one of the company founders, because in fact he was your grandfather, you'd feel relatively secure, right? Wrong.

When word came down to the technical-writing department that some people had to go, the pink slips were passed out. And on the receiving end of one of these notices was none other than John Harley Jr.

• Which means, among other things, that he won't be around for Harley-Davidson's contest. A few issues back we told of H-D's intention to branch out somewhat, lending its name to a variety of products from candy bars to cologne. Well, that's happened, and the Milwaukee-based company has introduced a line of motorcycle and fashion accessories, marketed under the "Harley Girl" label.

The contest involves Harley's nationwide search to find just the right girl to represent the new accessory line; applications are available at H-D dealerships, with an entry deadline of December 15, 1982. Fittingly, the final winner will be chosen during Daytona Bike Week, 1983.

• Bruce Penhall, however, isn't waiting until 1983 for his contests; the Speedway Superstar has gone Hollywood. Besides signing with the William Morris Talent Agency, Penhall recently showed up as a color commentator for CBS Sports. Oh yes, he's also slated for a screen test at M.G.M.

—Joe Kress •

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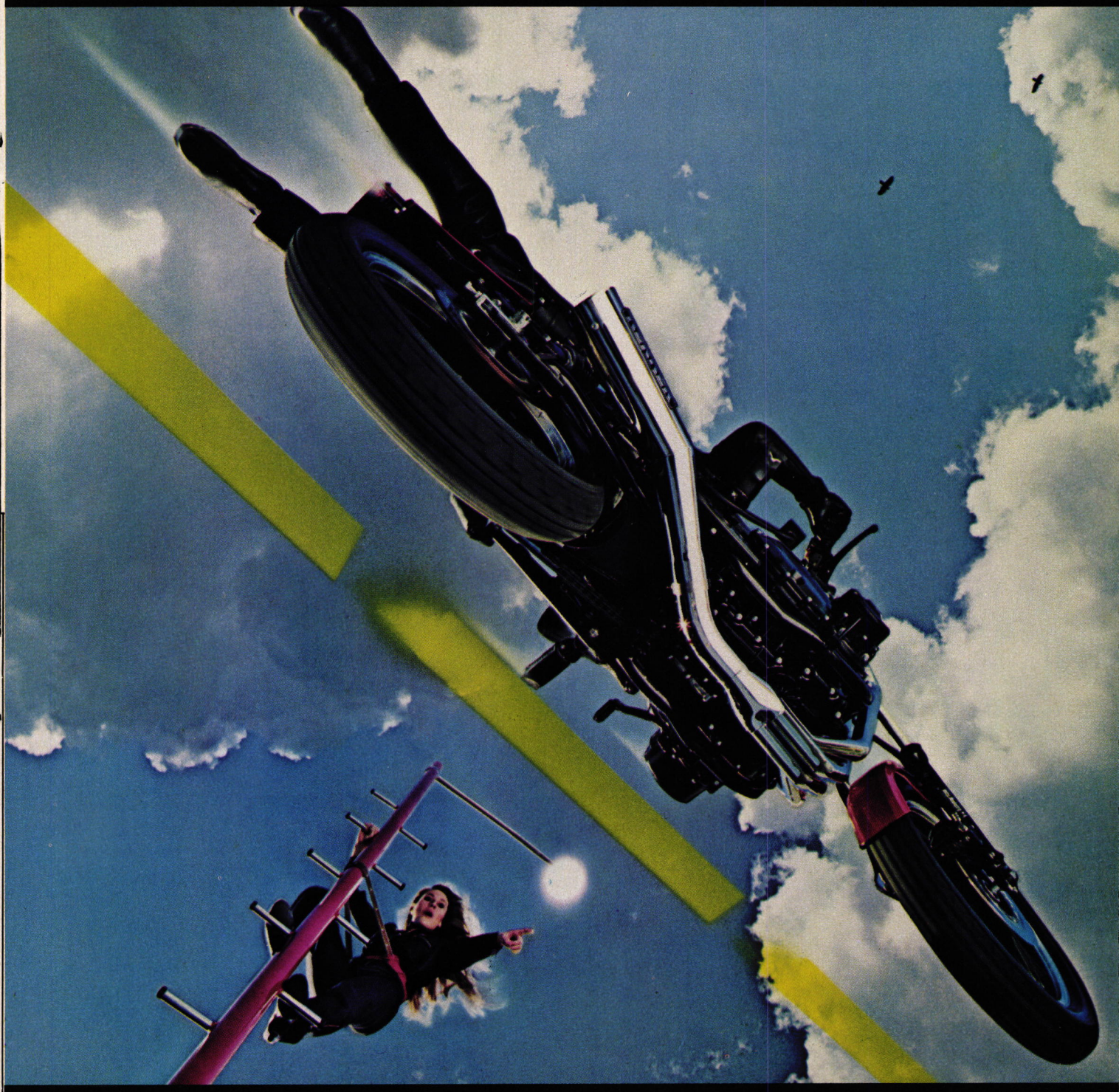

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Power literally pours from the 4-cylinder 4-stroke engine. The transmission: 6-speed.

The suspension: Leading axle front air forks and a needle bearing suspended swing arm.

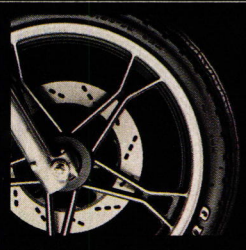
You'll also find new instrumentation, a slotted front disc brake and many other refinements for 1982.

See the GS-550L at your Suzuki dealer, soon. You'll be impressed.

Front air forks: Provide great handling in corners and extra smoothness on the roughest roads.

Combination switch: Controls headlight and turn signals. Also new is a fingertip choke lever.

Slotted front disc brake: A standard feature, along with new-style mag-type wheels.



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ROAD TEST:

Yamaha XJ650LJ Seca Turbo

The styling might be from outer space but the hardware is down to earth.

BY PAUL DEAN

Somebody has to say it, so it might as well be us: What this world doesn't need is another frightfully complicated turbocharged motorcycle. There already is one of those in production, with more apparently to follow. What this world could use instead is an *un*complicated turbo. One that won't intimidate potential buyers with sheer complexity. One that doesn't require a degree in engineering and a fortune in diagnostic equipment to troubleshoot and tune. One that allows the repair/replacement of individual components in the engine's support systems rather than forcing the installation of whole new systems. One, in fact, not unlike Yamaha's XJ650LJ Seca Turbo—the "simple" turbobike.

Trouble is, few people would ever figure this motorcycle to be simple based solely on its looks. It's a slice of the future as Yamaha sees it, a bike that wouldn't look any more out of place in the Star Trek prop room than in a Yamaha dealer's showroom. And its rocket-man styling all but sweats with high technology, as if to suggest that every inch of space behind all of those body panels is crammed with intricate mechanical workings.

In truth, that's not how the Seca Turbo is at all. But by the same token, neither does "simple" constitute a completely accurate description of this Yamaha—a four-cylinder, shaft-drive, fully faired motorcycle with computerized instrumentation and a complete, EPA-appeasing turbocharger system. Perhaps *simpler*,

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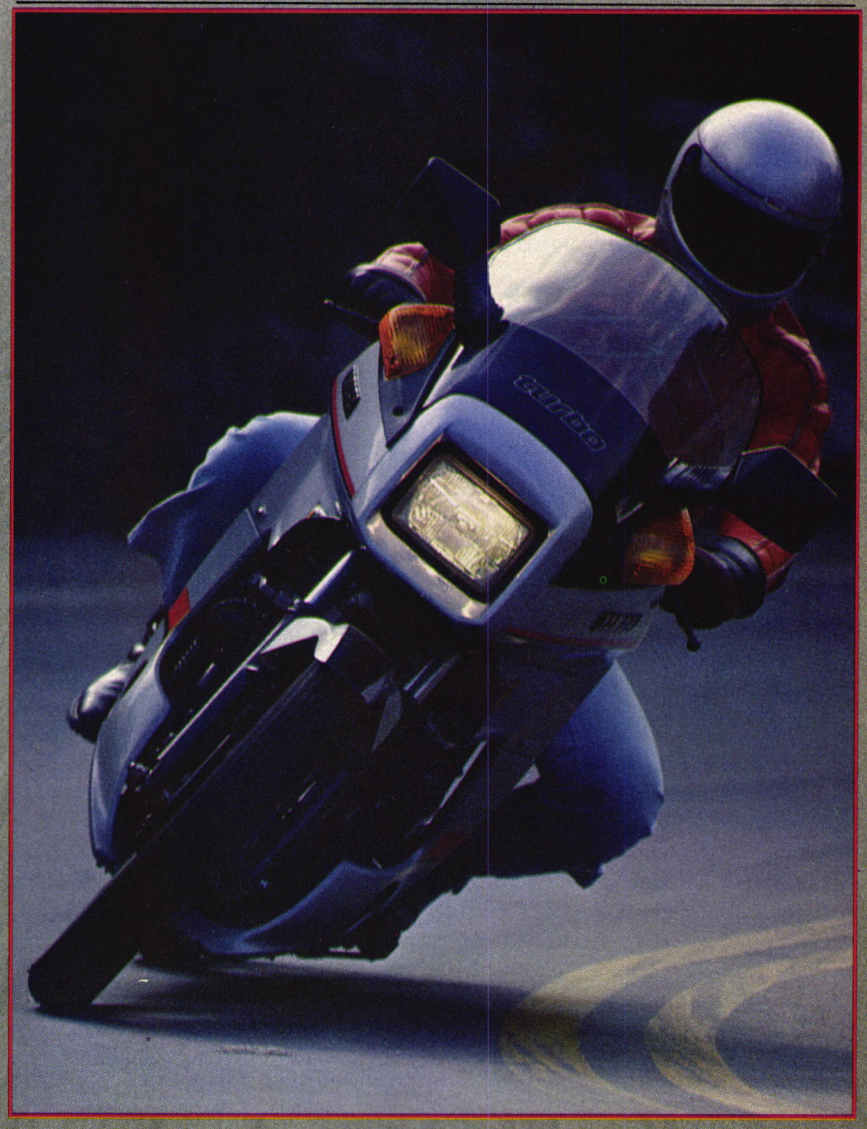
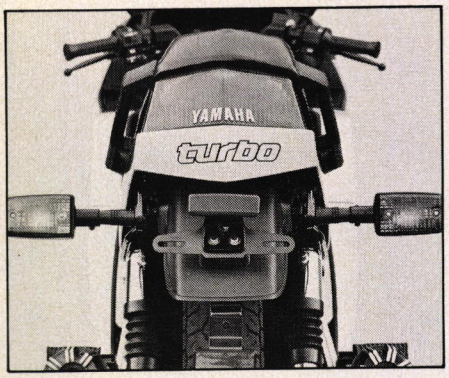
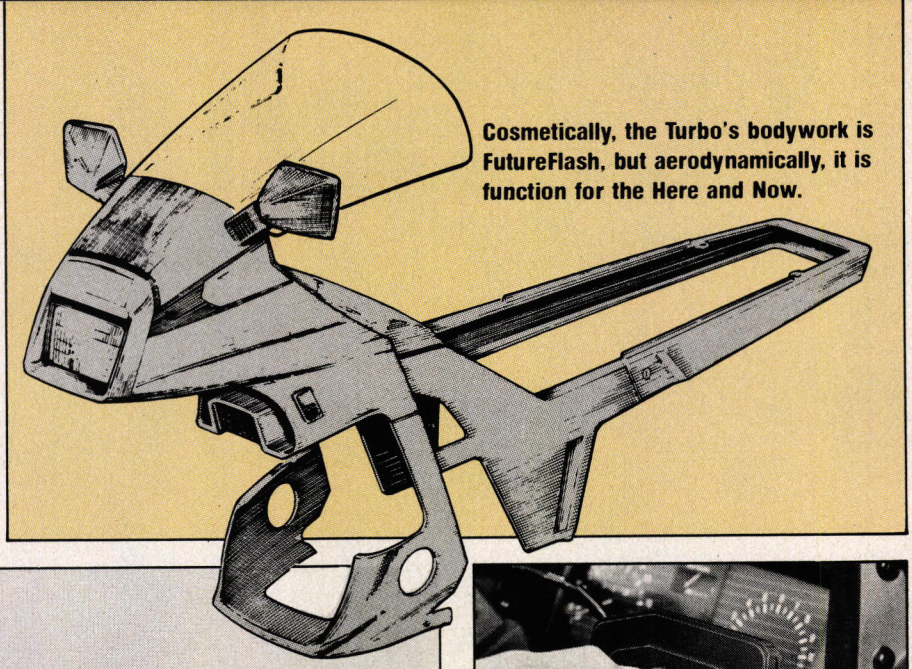


PHOTOGRAPHY © 1982 DAVID DEWHURST

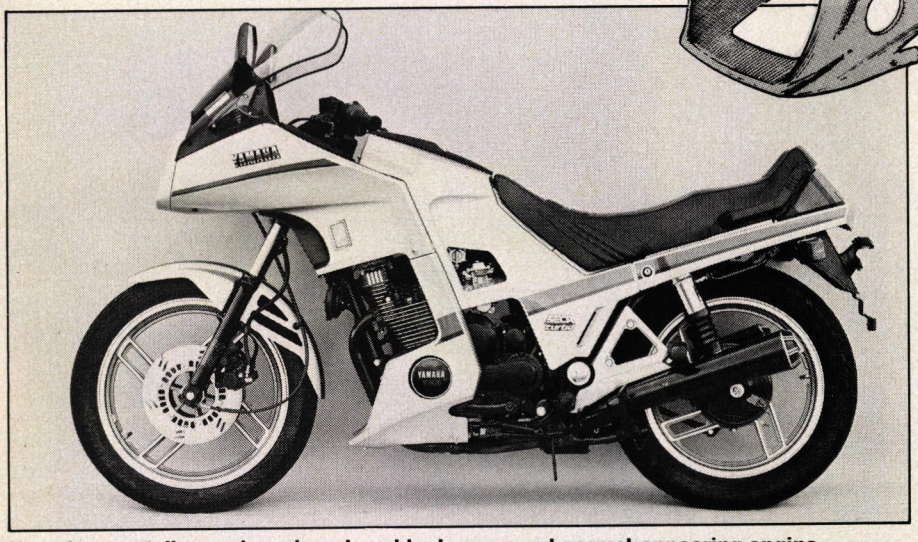


Rear view shows integrated seat/light

And an autograph for your followers.

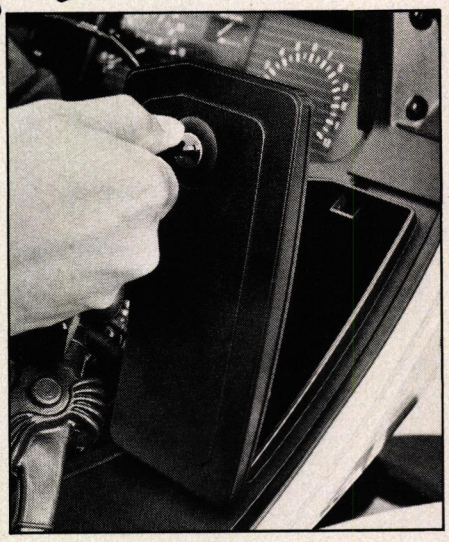


Cosmetically, the Turbo's bodywork is FutureFlash, but aerodynamically, it is function for the Here and Now.



Nose-heavy styling and semi-enclosed body surround normal-appearing engine

Only you and your insurance agent know better.



Fairing has two lockable compartments

Gloveboxes is a fitting description.

then, says it better. Because the Yamaha is infinitely simpler than Honda's awesomely complex CX500 Turbo, and—based on what's known about them at this point - it's not as complicated as the fuel-injected, computer-controlled turbos soon to be released by both Kawasaki and Suzuki.

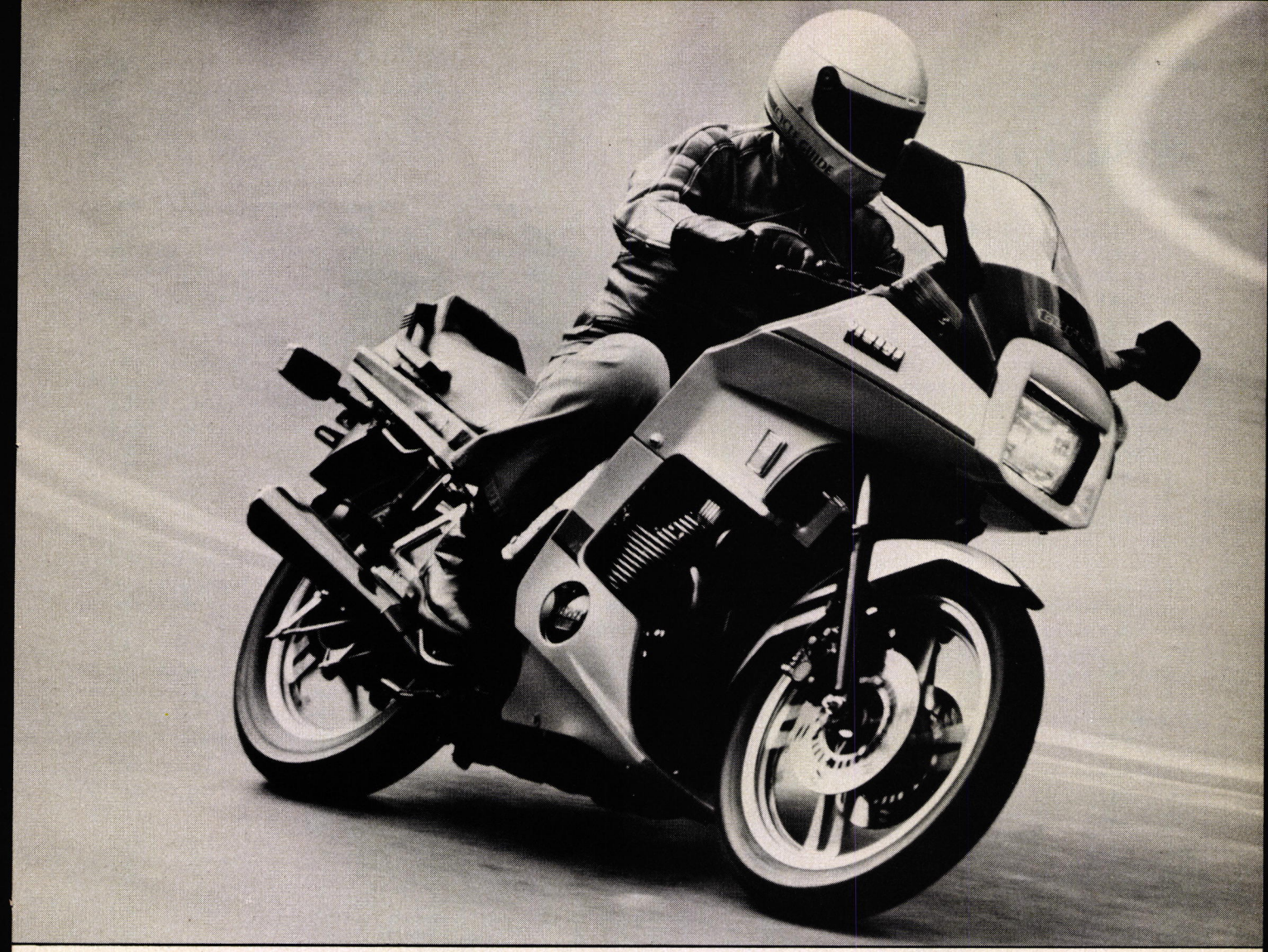
Indeed, once you peel back the Seca Turbo's future-shock bodywork, you're left with what looks like, and in fact *is*, pretty much a standard XJ650 Eurobike. There's no trace of the Mitsubishi-built turbocharger itself, since it's tucked down behind the engine cases, just below the swingarm pivot. The black-chrome exhaust system has the appearance of (but isn't) a run-of-the-mill four-into-two, and there's even a conventional-looking bank of four Mikuni CV carbs lined up behind the cylinder head. If you didn't know any better, you'd probably never guess that you were looking at a turbocharged motorcycle.

Obviously, there's a lot on unconventionality in the plumbing and hardware that's hidden from plain view, but it's all done in a straightforward, simple way. The carburetors offer a perfect example of that simplicity: They meter fuel mechanically, not electronically, are conventional in location and typical in design. That alone ought to win the Turbo a vote of confidence from every fuel-injection-fearing Yamaha mechanic in the country.

Locating the carbs downstream of the turbocharger (as opposed to the conventional practice of mixing the fuel upstream on carbureted turbo engines) not only helps the LJ's simplicity quotient, it is instrumental in allowing the engine to do what most other turboed engines cannot: have normal power and response when not "on the boost." Any time the turbocharger is not spinning fast enough to provide boost pressure in the intake tract, the 30mm Mikunis simply function as they would in a normally aspirated engine. Intake-manifold vacuum causes air to be drawn into the air-filter box and through a one-way reed valve connecting the airbox to the big air chamber at the rear of the carbs, then into the engine. So when not under boost, the intake system operates as though the turbocharger weren't there. But as soon as the turbo is spinning quickly enough to replace the partial vacuum in the intake tract with boost, the reed valve is forced closed and the intake becomes pressurized—turbocharged, if you will.

There are a few support mechanisms necessary to render this system operational (see "Inside The Rational Turbo," pg. 48), but it's still an elegantly simple arrangement. And one that works. In roll-on acceleration in all gears and at all rpm, the Turbo is *exactly* as fast as the unblown Euro 650. And that's doubly impressive when you consider that the Turbo's effective gearing is a smidgen taller than the Euro's (all the ratios are identical but the LJ's rear tire is about half an inch taller) and that it weighs 65 pounds more.

Any acceleration similarities end, however, once the Turbo is on the boost. In the lower gears this 650 pulls like a strong 750, and in the taller ones it sprints down the highway like a literbike stuck on fast-forward. As with most turbo machines, the LJ's quarter-mile numbers are not a true measure of the bike's peak acceleration, since there's a bit of delay—turbo lag—before that peak is reached. Moreover, the Turbo's maximum boost (7 psi) isn't high enough to deliver astronomical horsepower figures, and full boost doesn't kick in until



the engine is revving up near 5000 rpm. Nevertheless, the amount of turbo lag on the Yamaha *seems* unusually low simply because the engine performs so well when it's off boost. That's why there are seldom any sudden bursts of power as the engine makes the transition from off the boost to on it, especially in the higher gears. The rate of acceleration just gradually and smoothly changes from ordinary to omigod, much like what you feel in a jetliner during takeoff.

Yamaha's decision to keep boost pressure on the conservative side meant that the basic double-cam, eight-valve engine, borrowed from the Euro and Maxim 650 models, didn't need extensive remodeling to make it turbo-worthy. There were the usual sort of unblown-to-blown tuning adjustments (lower compression ratio, 2mm smaller carbs, less-radical cam timing and slightly reduced cam lift) as well as a few structural changes (stronger pistons, higher-grade main and con-rod plain bearings, increased cooling-fin area on the exhaust side of the cylinders, stiffer clutch springs) to cope with the effects of the added power. And the lubrication system was upgraded to include an oil cooler, a second oil pump (to scavenge the engine oil fed to the turbocharger's high-speed center bearing) and a small hole in each con rod to direct a stream of oil to the underside of the piston to help dissipate heat. Otherwise, the Euro and Turbo 650 engines, transmissions and drivelines are carbon-copies.

For the most part, so are the bikes' two chassis. Except for differences in bracketry, the frames are identical, right down to

Continued

COMPARATIVE TEST DATA:

Make and Model	Quarter-Mile, sec/mph	Top Speed, mph	Weight, lbs	Stopping Distance From 60 mph, ft.
Yamaha XJ650LJ-'82	12.61/104.7	126	541	145
Honda CX500 Turbo-'81	NA	136	549	NA
Suzuki XN85-'82	NA	135	492	NA
BMW R65 LS-'82	14.15/92.4	110	417	138
Suzuki GS650E-'81	12.89/101.4	128	462	115
Yamaha XJ650 Seca-'82	12.83/103.4	125	469	135

Inside The Rational Turbo

• To say that the XJ650LJ is a turbocharged motorcycle is only half-right—or, depending on your point of view, half-wrong. Because technically, it is every bit as much a normally aspirated motorcycle as it is a turbocharged one.

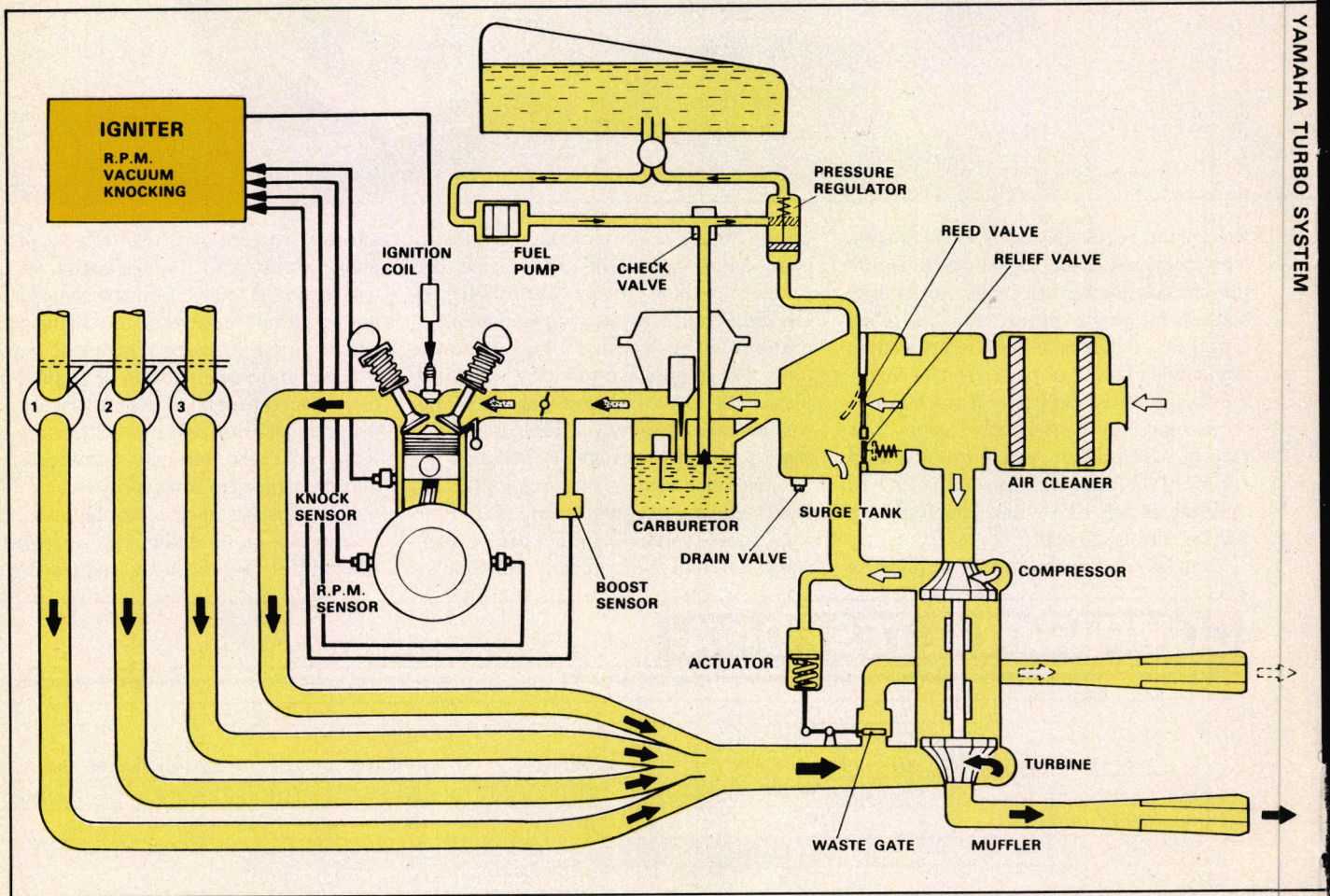
This two-bikes-in-one situation is a result of the way in which Yamaha dealt with a problem as old as turbocharging itself—the fact that when they're not on the boost, turboed motors don't perform anywhere near as well as their unblown counterparts. To a large extent, that's because in virtually every turbo system prior to this one, all intake air must first pass through the turbocharger's compressor wheel before entering the engine. Meaning that any time the compressor isn't spinning fast enough to pressurize the intake system, it is simply an obstruction that adversely affects the flow of incoming air. Thus the engine cannot perform at sub-boost rpm as well as it could were the compressor not in the way.

The Seca Turbo, however, is different in that its turbocharger isn't even a part of the intake tract until it produces boost. The intake system is similar to that of an unblown engine, with four conventionally located CV carburetors plumbed into a "surge tank" (a plenum-type chamber), behind which is a separate airbox that houses the air-filter element. The trick is that air can get from the airbox to the carbs in one of two ways: through a large reed valve that connects the airbox to the surge tank; or through the turbocharger, first via a long duct linking the under-seat airbox to the turbo unit below the swingarm pivot, then through a second duct connecting the turbo to the surge tank.

Any time the turbocharger is being spun too slowly to pump boost pressure into the surge tank, the intake system still can aspirate (and the engine perform) normally without any interference from the compressor wheel. Intake vacuum creates a low pressure in the surge tank, which sucks the reed valve open, allowing air to flow from the airbox, through the carbs and into the engine, bypassing the turbocharger altogether. But as soon as the turbo speeds up sufficiently, the negative pressure in the surge tank is supplanted with positive pressure (boost) that closes the reed valve and, consequently, turbocharges the intake tract.

Aside from the performance benefits of this arrangement, there are numerous other advantages. It's simpler and less expensive to manufacture than the electronically fuel-injected turbo systems that Yamaha's competition favors. That means easier, less-costly servicing, particularly since most shop mechanics should already be familiar with CV carburetion. And an invaluable bonus with this kind of turbo system is that the turbocharger can be mounted almost anywhere on the motorcycle.

Yamaha opted for a highly unusual turbo location, but for good reasons. For one, it positions much of the system's weight below the bike's center of gravity, where it has the least negative effects on



LJ's intake layout cures the off-boost performance blahs simply and effectively:

If the turbocharger can't supply any pressure, merely bypass it.

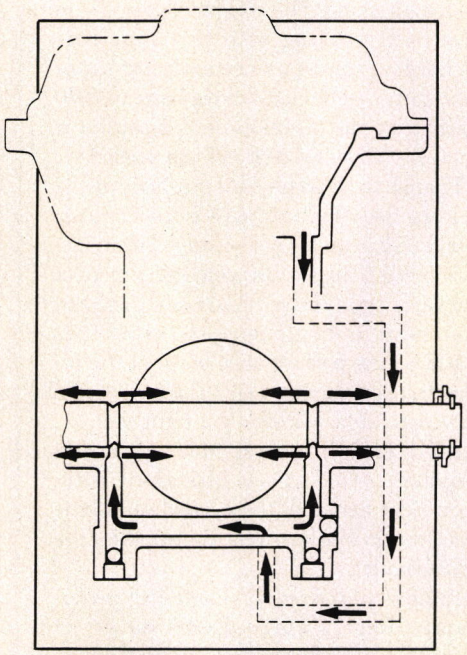
handling. And it keeps the extreme heat radiated by the turbo and the exhaust system far away from both rider and carburetion, at the same time virtually eliminating the need for any added exhaust plumbing. The turbo location also allows the LJ's external mechanicals to look quite conventional, which Yamaha hopes will allay any potential buyer's fears about owning an overly complex motorcycle.

Despite those numerous blessings, however, the turbo's remote location does have the disadvantage of being too far away from the engine to minimize turbo lag—the delay between the opening of the throttle and the arrival of boost. But Yamaha attempted to limit the amount of lag by: 1) using the world's smallest turbo unit, a Mitsubishi TC03-06A with 39mm turbine/compressor wheels; and 2) developing an exhaust collector that joins together header pipes Nos. 1 and 4 separate from Nos. 2 and 3, thereby directing exhaust pulses at the turbocharger that are evenly spaced. Futhermore, since the compressor wheel in this system pumps only plain air rather than air/fuel mix, it needn't have any mechanical seals to speak of. And that absence of seal friction permits the compressor to turn more freely and thus be easier to speed up at lower revs.

Some problems had to be ironed out of the carburetion, as well. Their location downstream of the turbo means that they are pressurized—that is, have greater-than-atmospheric (rather than less-than-atmospheric) pressure in their throttle bores—any time the system is under boost. This would have prevented fuel from being drawn up into the venturis during boosted operation; therefore, the electric fuel pump was linked to a special regulator (which senses the pressure changes in the surge tank) to insure that the pressure exerted on the fuel in the float bowls *always* is 0.2 kg/cm^2 (approximately 3 psi) higher than the pressure in the throttle bores so that boost or no boost, fuel will consistently be drawn up into the airstream.

Having pressurized carbs also means that they must be sealed wherever they might allow fuel to escape. But rather than installing mechanical seals around the throttle shafts and cold-start enrichener plungers (two areas where freedom of movement is important), Yamaha used a unique system of air seals. Air enters each carb body through an opening back near the surge tank, then is routed through passages to the aforementioned areas, where it flows around the parts to be sealed before simply leaking out to the atmosphere. Since the pressure in the air-seal system always is at least equal to that inside the carburetor (both get their pressure from the same source), the flow of air prevents any fuel/air mixture from leaking past.

Other unique aspects of the LJ's turbo system include the right-side muffler, which is used only as an exhaust dump for the wastegate once it opens at 7 psi of boost. All of the regular exhaust gases are routed through the left-side muffler only. Should the wastegate ever stick closed, there's a separate blow-off valve in the surge tank that won't let intake pressure exceed 14 psi. And to further prevent engine damage, a special electronically controlled spark advance regulates the ignition timing to achieve the best balance between power and reliability. A sensor in the intake system calculates the amount of tubo boost and advances the timing accordingly for optimum performance; but at the same time a knock sensor installed in the cylinder block retards the timing the instant it detects any detonation.



Non-mechanical carburetor seals

Letting air seep out keeps fuel in.

All of this sounds rather complicated and contradictory to any claims of simplicity, but it's really quite straightforward. So much so that the Turbo can be fully serviced with the very same special tools needed for the unblown Euro 650. And that's the kind of simplicity that hits you in the seat of the pants—right about where you keep your wallet. *—Paul Dean*

steering geometry and wheelbase. The Turbo has air-assisted front and rear suspension, and its shocks offer four-way-adjustable rebound damping—all features that the Eurobike doesn't have. The LJ's four-spoke cast wheels are of a different design than the Euro's "veg-a-matics," and although both bikes use the same-size tires, only the Turbo's are V-rated.

This means that the Seca Turbo is the only turbobike from Japan not to have a special one-shock chassis built expressly for it. But that's not necessarily a bad thing, given that the Euro 650 has been hailed as one of motorcycling's finest-handling sportbikes. And once again, it's a simpler approach to the problem. The location of the turbocharger and its attendant plumbing would have made designing a single-shocker a genuine nightmare.

Despite the unoriginality of its chassis, the Seca Turbo handles quite nicely, thank you. Understand, of course, that it is not a bike meant to fulfill the peg-dragging fantasies of 18-year-old canyon-crazies; no indeed, this is something more along the lines of a sport-tourer, a bike that you can ride fast, lean far and profile to your heart's content, but that's not the ticket for ten-tenths corner berserking.

For one thing, the nature of the power delivery gives flat-out cornering an abnormally high degree of difficulty. Using high rpm in the turns can unleash more acceleration than you want, while lower revs can deliver less than you need. And then there's the added weight that has transformed the mid-size Eurobike into a liter-class heavyweight. Fortunately, a lot of that additional weight is low, meaning that the center of gravity hasn't been noticeably raised. So the Yamaha doesn't resist leaning or sit up while braking in a turn the way Honda's 549-pound, high-*cg* Turbo does. But side-to-side transitions are more sluggish on the LJ than on the plain-Jane 650, and you can't bank the blown Yamaha into any kind of turn as easily. Full-on cornering also causes the tires to squirm a bit, letting you know that they're nearing their limits.

Overall, the best handling comes when the fork and shocks are set near the upper ends of their air-pressure ranges and the shock damping is adjusted to position 3 or 4. The chassis is then free of any wobbles or twitches—although when the suspension is in its cushier modes you can provoke a mild rear-end wiggle by snapping the throttle closed or dabbing the rear brake.

Those soft settings yield a comfortable ride, though, that's at least as good as you'll get on any other Yamaha but not quite state-of-the-art like, say, on one of the bigger Suzukis. There's some choppiness

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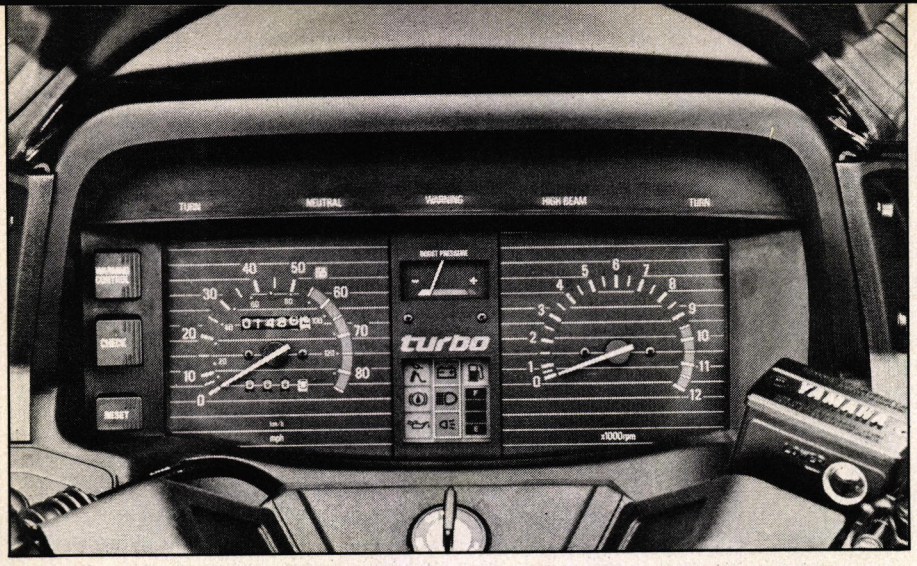


Instrumentation includes analog boost gauge and LCD systems-monitoring panel

Cozy cockpit for the Turbo's chief pilot.

evident when passing over uneven concrete-slab highways, expansion joints and other small-but-abrupt irregularities. Otherwise, the ride is smooth, non-fatiguing and complementary to the Turbo's role as a medium-range sport-touring device.

Neither is there much to snivel about with the riding position, particularly if you're less than six-feet tall. The elaborately styled seat is surprisingly comfortable and supportive on lengthy rides, and the all-important seat/peg/grip relationship feels as ergonomically right on this bike as it does on the Euro 650 from which it was lifted. Our longer-legged riders continually banged their knees into the rear of the full fairing, however, primarily when braking hard or riding two-up.

Aside from that complaint, and an annoying buzz that sneaks into the footpegs around 5000 rpm, there's little to intrude into the enjoyment of life aboard the Turbo. The wind-tunnel-designed fairing seems to part the air efficiently, evidenced by the bike's rock-steadiness in crosswinds and the rider's unawareness of any turbulence. The fairing is too narrow to offer any hand protection and too low to shield much of the rider's head, but there is no buffeting in those areas, just a steady stream of undisturbed air.

All in all, the ambience behind the fairing is cozy and cockpit-like, which seems to go hand-in-hand with the Turbo's starship styling treatment. Instrumentation includes a color-coded analog turbo boost gauge and an LCD systems-monitoring panel between the conventional tach and speedo. And two small, lockable compartments in the fairing provide storage space for gloves, maps, etc.

What subtracts from that cockpit coziness is that some of the fairing's numerous little pieces don't fit together well at all. And certain of those pieces—as well as some segments of the main bodywork—are inexcusably flimsy. Functionally, none of this is damaging; but it has led some people to believe that the Seca Turbo merely is Yamaha's quick-and-dirty reaction to Honda's Turbo. But that's not the case. For while it *is* likely that once the Honda hit the streets, the LJ's bodywork was rushed just to get the bike into production, the mechanicals are precisely what Yamaha intended all along. The company's engineers have been working with this basic turbocharging concept since early 1980, and their turbo technology dates back to 1970 when they did development work on a turbo for Toyota's 2000 GT car engine.

Thanks to those no-frills mechanicals, in fact, the Seca Turbo almost is the first turbobike to live up to the motorcycling industry's predictions for turbocharging made a few years ago. The promise back then was that middle-displacement turbobikes would be the performance wave of the future, the perfect way to get the best of two very desirable worlds—the light weight, maneuverability, fuel efficiency and simplicity of a mid-size bike along with, upon rider demand, the eyeball-squashing acceleration of something almost twice the displacement.

Aside from the part about go-fast performance, Honda's Turbo doesn't do any of those things. But even though the Yamaha isn't quite as fast as the CX, it handles much more nimbly, is just as fuel-efficient as the mid-size (and unblown) Euro 650 (our LJ got between 38 and 57 mpg) and, as we have seen, is demonstrably simpler than all of its competition.

That might not be a letter-perfect execution of the industry's projected One True Turbobike, but it's the closest so far. And until something else comes along that offers even less complexity, the Seca Turbo will stand as the industry's most *sensible* turbocharged motorcycle. One that also happens to be thrilling to ride, as well. •

Ride Review

• I appreciate simplicity in machinery. I've spent too many years turning wrenches not to. So for me, the real attraction of Yamaha's pressurized LJ is the clever way the turbo is used. The blend of naturally aspirated/boosted engine is a stroke of pure genius. From a maintenance and reliability standpoint, I can't help but applaud Yamaha's decision to retain, and work with, CV carburetion. The way I see it, just what we *don't* need is another computer-controlled technomarvel that forces you to choose between a mechanic or a TV repairman should trouble arise.

But this isn't to say that the LJ is perfect, because while I value simplicity I also value performance. Which means that I expect a turbobike to hit with a punch that would stun a mule. And this one doesn't. So simplicity aside, the bottom line is that this turbo isn't for me.

—Joe Kress

• I'll admit it. I love flash bikes as much for the flash as for the bike. And the Yamaha XJ650LJ Turbo is pure flash on wheels. Plus it has a bonus: It performs.

So with both flash and function, the Yamaha should be the perfect machine for me. But it isn't. And I'm not sure why. Maybe it's because I keep comparing the flash side of the LJ with the ultimate in dazzle—a Honda Turbo. When matched up close with the CX, the Yamaha looks plastic-shelled and dull. And when I think of the LJ as a performance machine, I compare it to a standard XJ650. The Turbo 650 may outrun an XJ on top, but the lighter non-hyperventilated 650 will tear the LJ a new exhaust when the road gets twisty.

I still can have fun on the Turbo, but when I see a Honda Turbo or a standard XJ on the road, I'll wish I had a lot of flash or a lot of bike—not a touch of both.

—Ron Lawson

• By all rights, the Seca Turbo should be up near the top of my list, since it's based on one of my favorites, the XJ650 Seca. But it's not. The Turbo is appealing in its own way, but any resemblance between the Turbo's Rocket Boy looks and the smooth, balanced styling of the XJ ends at the fact that each bike has two wheels and four cylinders.

Beyond that, how each 650 approaches street duty is as different as night and day. The normally aspirated Seca makes up speed in corners, while the Turbo—though not as top-heavy as the Honda CX Turbo—feels somewhat ponderous in the twisties. Not enough to keep you from going fast; just enough to make the straights seem more attractive. Call it plain pigheadedness, I won't argue. But a real turbocharged Seca, one without the slab-sided plastic, would suit me to a T.

—Larry Works

CYCLE GUIDE SPECIFICATIONS

Yamaha XJ650LJ Turbo — street

IMPORTER: Yamaha Motor Corporation USA, 6555 Katella Avenue, Cypress, California 90630

SUGGESTED RETAIL PRICE: $4999

ENGINE

Type ..... turbocharged four-stroke transverse vertical four
Valve arrangement ..... double overhead camshafts
Bore and stroke ..... 63.0mm x 52.4mm
Displacement 653.4cc
Compression ratio 8.2:1
Engine redline ..... 9500 rpm
Carburetion ..... four 30mm Mikuni constant-vacuum
Air filter ..... disposable pleated paper element
Lubrication ..... wet sump
Starting system ..... electric only
Ignition ..... transistorized breakerless
Charging system ..... 12-volt; 260-watt alternator, voltage regulator/rectifier

DRIVETRAIN

Primary drive ..... straight-cut gears; 1.672:1 ratio
Clutch ..... wet, multi-plate
Transmission-to-jackshaft drive ..... straight-cut gears; 1.361:1 ratio
Jackshaft-to-driveshaft drive ..... spiral-bevel gears; 1.056:1 ratio
Driveshaft-to-rear-wheel drive ..... spiral-bevel gears; 2.909:1 ratio

Gear	Internal gear ratio	Overall gear ratio	MPH per 1000 RPM
I	2.188	15.291	6.0
II	1.500	10.485	7.3
III	1.154	8.065	9.5
IV	0.933	6.524	11.8
V	0.813	5.679	13.5

SUSPENSION/WHEEL TRAVEL

Front .. Kayaba air-spring, 36mm stanchion tube diameter/5.6 in. (142mm)
Rear ..... dual Kayaba air-spring shocks, 4-way adjustable rebound damping/3.8 in. (97mm)

BRAKES

Front ..... dual single-action hydraulic calipers, 10.5-in. (267mm) discs
Rear ..... drum, single-leading shoe, rod-operated

TIRES

Front .... 3.25V19 Bridgestone Mag Mopus L303 tubeless
Rear ..... 120/90V18 Bridgestone Mag Mopus G508 tubeless

DIMENSIONS AND CAPACITIES

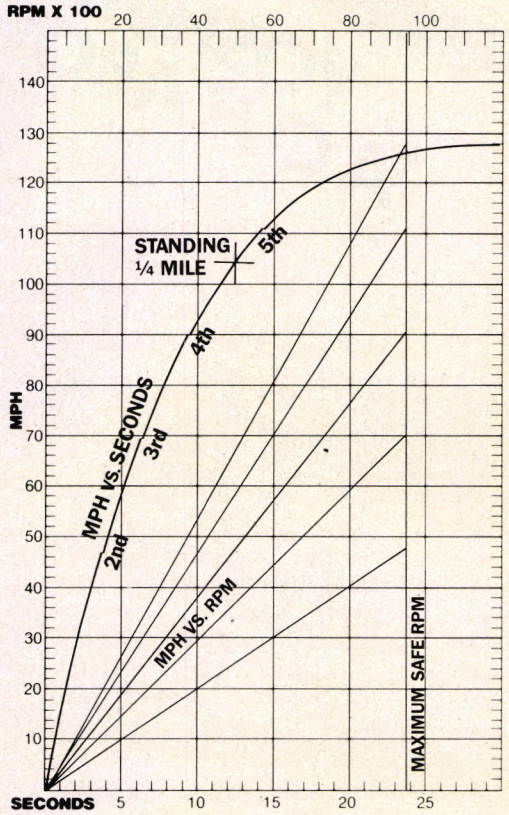
Weight ..... 541 lbs. (245kg)
Weight distribution ..... 46.6% front, 53.4% rear
Gross vehicle weight rating (GVWR) ..... 915 lbs. (415kg)
Load capacity (with full fuel tank) ..... 348 lbs. (158kg)
Wheelbase ..... 56.7 in. (1440mm)
Seat height ..... 30.9 in. (786mm)
Handlebar width ..... 27.5 in. (699mm)
Footpeg height ..... 12.8 in. (325mm)
Ground clearance ..... 5.4 in. (136mm), at turbocharger shroud
Steering head angle ..... 27.8 degrees from vertical
Front wheel trail ..... 4.53 in. (115mm)
Frame ..... tubular mild steel, double front downtubes
Oil capacity ..... 3.7 qt. (3.5*l*)
Fuel tank ..... steel, 4.2 gal. (16.0*l*), including 0.5 gal. (1.9*l*) reserve
Instrumentation ..... speedometer, odometer, tripmeter resettable to zero, tachometer, turbo boost gauge, LCD fuel gauge, LCD monitoring system

PERFORMANCE

Fuel consumption range ... 38 to 57 mpg (16 to 24 km/*l*)
Average fuel consumption ..... 48 mpg (20 km/*l*)
Cruising range, maximum ..... 160 to 239 miles (257 to 389km)
Cruising range, reserve only .. 19 to 29 miles (31 to 47km)
Speedometer error, 30 mph indicated ..... 28 mph actual
Speedometer error, 55 mph indicated ..... 51 mph actual
Best 1/4-mile acceleration ..... 12.610 sec., 104.65 mph (168 kph)
Top speed (observed) ..... 126 mph (203 kph)
Stopping distance from 30 mph ..... 34 ft. (10m)
Stopping distance from 60 mph ..... 145 ft. (44m)

WARRANTY: 6 months unlimited mileage

AVAILABLE COLOR: silver only



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YOSHIMURA
The Precision. The Performance. The Power.

MINITEST:

Yamaha XJ650 Seca

Lack of specialization is its own reward.

PHOTOGRAPHY © 1982 HELIOTROPE PHOTOS

The Yamaha XJ650 apexes its way from Europe with the handling to establish its residency on American backroads

A lack of specialization makes the XJ especially suited for this country.

• Maybe the significant thing about the Yamaha XJ650 is that it broadens rather than limits the options for a ride. In an era of specialized motorcycles, that's the exception, not the rule, because part of the *quid pro quo* of specialization is a limiting of function. The XJ650, which is so *un*specialized, can work well almost anywhere, and it works terrifically on that in-between distance—the 50-to-500 mile ride so familiar to most riders.

The XJ650 accomplishes this well-rounded adaptability because it's a multi-role, competent motorcycle. That doesn't mean all work and no play, but rather a carefully conceived approach to building wide capabilities. While the Seca delivers enormous entertainment-per-mile, nowhere on the XJ650 is function sacrificed for mere frivolity; instead, the solid understanding of a motorcycle's function is so woven into the bike as to enhance its fun factor. The result is two-wheeled enjoyment for the serious rider.

An examination of the bike's details reveals no technology particularly *avant garde*, just basic considerations for the purpose of a motorcycle and the needs of its rider. That technology includes shaft drive, which appeals to the maintenance-free in each of us, but is not often thought of as applicable to sport bikes. The XJ650 disproves the notion; its shaft drive eliminates all but the tiniest bits of unsavory shaftie behavior, and only on really bumpy surfaces does the effect of more unsprung weight make itself known. The five-speed gearbox shifts crisply; and the brakes—dual discs in front, drum in rear—are sure and positive. All this, of course, is the way is should be. But at 469 pounds, the Seca is perhaps a little *more* than it should be, though it is one of those bikes that seems to ride lighter than it is. The standing quarter-mile is covered in 12.83 seconds at 103.44 mph; again, not startling, but entirely up to the job.

Which about sums up the 650 Seca.

YAMAHA 650 SECA

Importer: Yamaha Motor Corporation USA
6555 Katella Avenue
Cypress, California 90630

Category	street
Suggested retail price	$3099
Engine type	four-stroke transverse vertical four
Valve arrangement	double overhead camshafts
Bore and stroke	63.0mm x 52.4mm
Displacement	653.4cc
Compression ratio	9.2:1
Carburetion	four 32mm Hitachi constant-vacuum
Gearbox	5-speed
Front fork/wheel travel	36mm stanchion tube diameter/5.7 in. (145mm)
Rear shocks/wheel travel	5-way adjustable spring preload/3.9 in (100mm)
Wheelbase	56.5 in. (1435mm)
Seat height	31.3 in. (795mm)
Weight	469 lbs. (213kg)
Best 1/4-mile acceleration	12.830 sec., 103.44 mph (166 kph)
Top speed (calculated)	125 mph (201 kph)
Stopping distance from 60 mph	135 ft. (41m)
Fuel consumption	44 to 59 mpg (19 to 25 km/l)
Warranty	6 months unlimited mileage
Available color	Quartz Silver only

Beyond the contemporary technology and measured numbers is the way in which the less obvious of its attributes convey the message of competence and adaptability. You ride on a simple bench seat, feet on slightly rear-set pegs that are in exactly the right place, hands on fairly low and narrow bars. It's an anatomical ideal; neither tourer, nor racer, but *right*. The effect is undisturbed by the narrow two-valve-per-cylinder engine. Only a minor buzz around 5000 rpm. interrupts the XJ's otherwise silky climb to redline, and throttle response is a textbook example of how to connect twistgrips to carburetors. The exhausts are tucked cleanly under the engine and wrapped tight to the frame in back, the side- and centerstand are out of the way, and the bike must be leaned to extreme angles before metal scratches asphalt. And if the Seca's non-air-assisted suspension is a model of convention, it still soaks up concrete mistakes. And the XJ650's eight-inch halogen headlight is a shining beacon that shows that the designers figured this bike just might have to answer to serious riding.

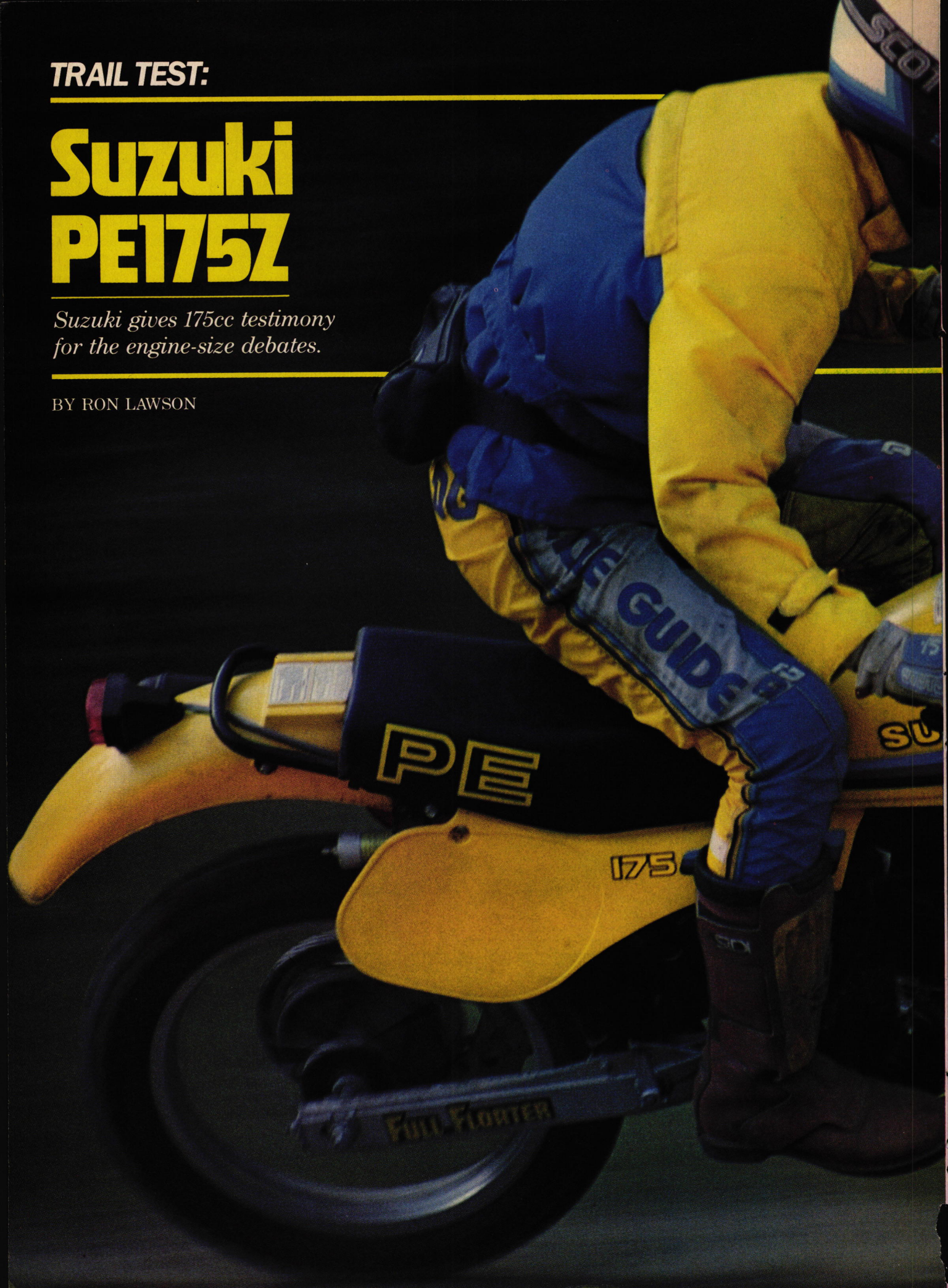
It is only after that serious riding that the XJ650 shows it colors: This is a motorcycle that accommodates and assists the rider, rather than forcing him to accept any compromises that result from its specialization. As such, the Yamaha XJ650 might not be your pick if you could have any number of motorcycles to satisfy your riding wants, but it certainly would be a choice if you could have only *one* motorcycle. —*Don Fuller*

TRAIL TEST:

Suzuki PE175Z

Suzuki gives 175cc testimony for the engine-size debates.

BY RON LAWSON



PHOTOGRAPHY · DAVID DEWHURST

Suzuki has gotten off the subject. While Honda, Kawasaki and Yamaha have been involved in a serious battle over the 200cc enduro class, Suzuki has been addressing an entirely different issue with the PE175: Why not a 175 instead of a big-bore?

It's plain that 175s are changing roles. No longer are technology wars confined strictly to motocross courses while enduro bikes pick up the leftovers a year later. The PE is truly a new machine, and its performance demonstrates that sleeves are being rolled up, money is being spent and 175s are becoming serious motorcycles capable of winning enduros. So serious, in fact, that the 175 is the only PE in Suzuki's 1982 lineup. And so serious that the PE can contend not only for the title of best 175, but best enduro motorcycle of *any* size.

It's difficult to build such a strong case for 175s after they've spent years being relegated to vacation-time giggle-machines for the wife and kids, but the current explosion in that class is aimed at convincing *you* that competitive enduro riding doesn't necessarily equate to large engine size. And of

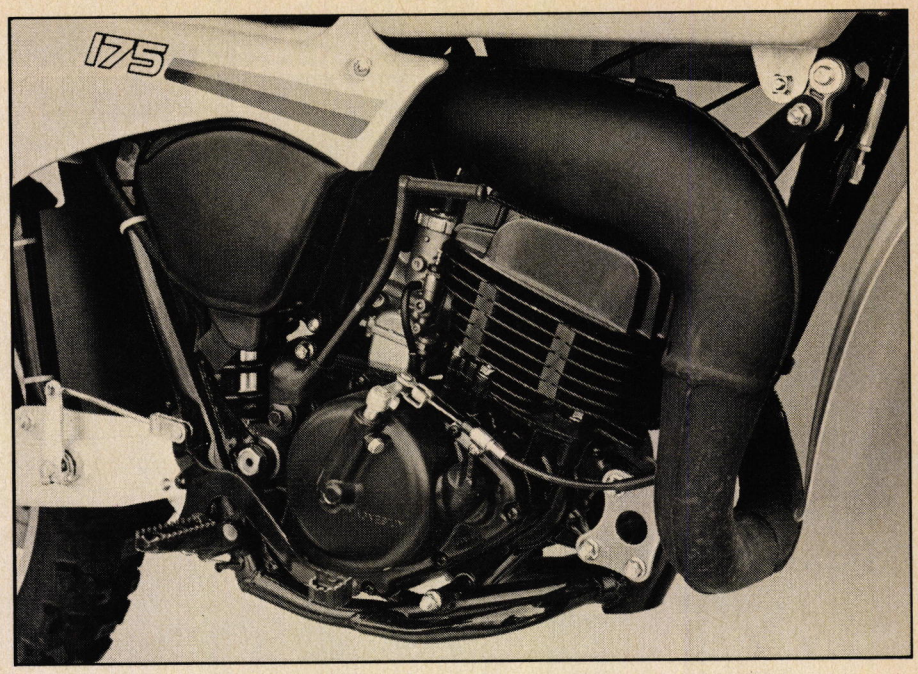
Continued

the new generation of small-bore challengers, the PE is best qualified to prove the point.

Your first clue that the PE is meant more to win enduros than to fill a low-caliber slot in Suzuki's off-road lineup comes with a detailed look at its rear suspension. This year there are four single-shock 175cc enduro machines, and with Yamaha's remake of the IT175, three of them are of the rising-rate variety—that is, as the suspension is compressed, the mechanical leverage on the shock decreases, upping the effective spring and damping rates. The easiest way for Suzuki to get the PE on the rising-rate caravan would have been to bolt on the single-shock rear end of the RM125. After all, Yamaha produced good results by using YZ100 suspension on the IT175. But the PE is its own machine; and while pasting together MX designs might have been a successful approach from a sales point of view, it is no guarantee of success out on the trail. If such a machine were competent on an enduro course, it would be more a product of luck than of good design. So out came Suzuki's checkbook, and the PE entered the single-shock world standing on its own suspension. Its linkage, struts and shock are laid out in the same configuration as the larger RMs, but all of the PE's parts have been redesigned specifically for enduro requirements. All four of the rebound settings have less damping than the RM125's shock, and the PE has its own progression curve and a lower spring rate.

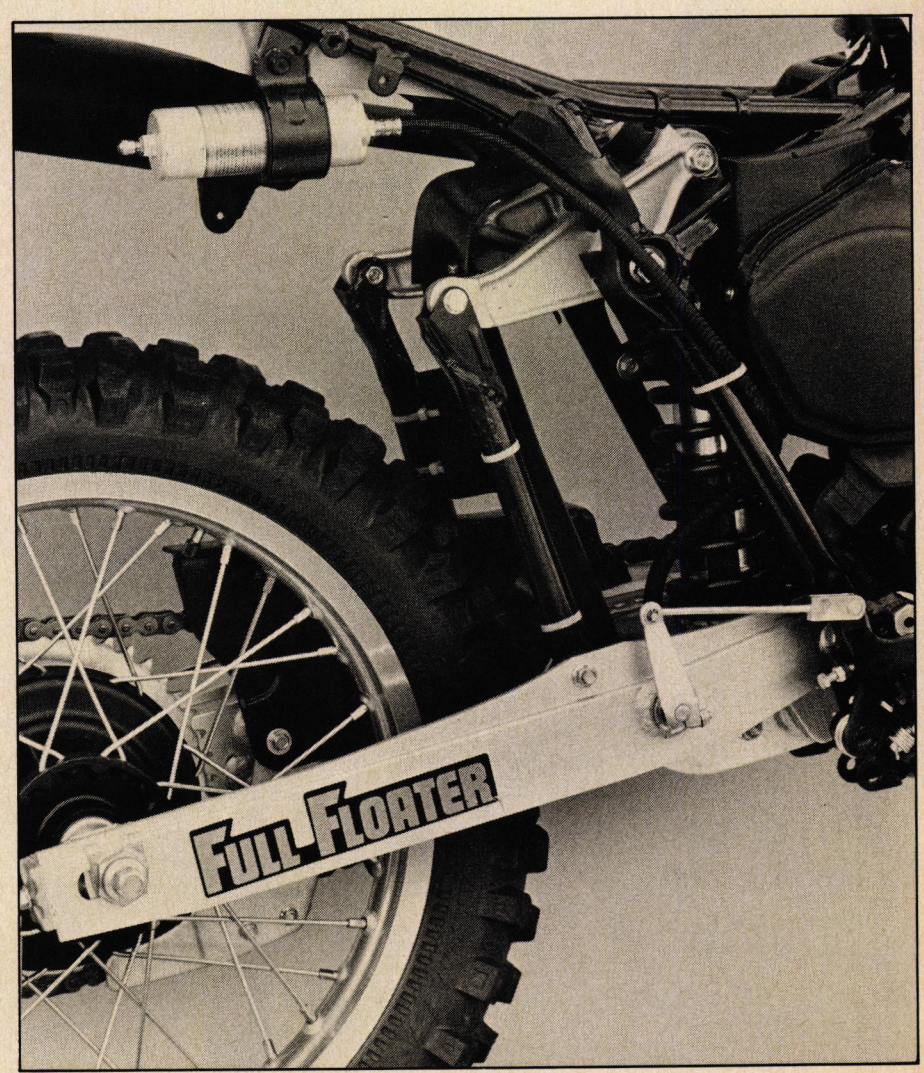
It seems that Suzuki had large riders in mind for the PE, for the rear end is sprung more heavily than are most 175s. The springing feels more in line with that of most 250cc enduro machinery, but it won't jar the teeth out of a lightweight rider either. The PE is progressive and smooth over the little choppy stuff, but really excels when the trail gets rough. In fact, there are very few enduro bikes in the same league when it comes to smoothing out the gnarlies. The Husqvarna 250WR is one of them but even it can't match the PE when it comes to things like rolling sand whoops. The PE's 250-caliber suspension is combined with the weight of a 175, and so when the bike does get sideways or out of shape, it's much more easily corrected than a bigger machine. The PE can take almost anything in stride, proving it doesn't take a foot of travel to build an enduro winner. The PE gets the job done—and done quite well—with just 9.8 inches.

The Suzuki's Kayaba fork is typical of modern Japanese dirt-bike design—that is, *good*. As fork technology becomes more universal, dirt-bike front ends are becoming



The PE175 owes its horses to a new pipe and a rethought port configuration

And a closer-ratio gearbox helps keep the PE at full gallop.



Suzuki took the expensive route when it gave the PE175 its own Full Floater

Single-shock suspension is the rising rate of a world-class enduro entry.

more similar in both specifications and feel. Straight-rate springs with aircaps but a recommended air-pressure of zero psi (the trapped air within the stanchions still provides progressively increasing resistance) and 38mm stanchion tubes are common to most 175s. Like the rear suspension, the fork is sprung for average to heavy riders. But the performance of the fork doesn't quite feel as smooth and progressive as that of the rear. This is partly because the handlebar is low and the seat is high, causing the rider to place additional weight on his arms. And that enables him to feel more of the ruts and bumps transmitted through the fork.

Even though the seat and bars give the PE pilot a downhill riding position, the machine is comfortable. Without the design restrictions imposed by using leftover 125 MX parts, the 175 could be configured to fit the average enduro rider. That means the PE isn't a kids-only motorcycle. The riding stance is suited for riders around the six-foot mark. Tight trail manipulation on any machine requires fast action, and you can't react quickly if you're cramped. The PE places the rider in a position that allows him to move easily. You don't have to make a conscious effort to move your weight back for the big bumps—it happens easily. You don't have to use your last energy reserves to stand when you're tired—standing on the PE feels natural because of the low handlebar. And when the bike comes to tight turns it's easy for the rider to slide forward into the right position.

In the turns, the PE is a very neutral-handling machine. Its steering geometry certainly isn't slow, but isn't quick or twitchy, either. The PE has a middle-of-the-road 28-degree fork-angle and 57-inch wheelbase, but it feels wiry and agile. You get the feeling that both wheels are hitting the turn in the same instant. Instead of leaning over, foot out and ready to slide around the corner, you flick the machine over and change direction. Once you learn to flick the bike rather than muscle it, the PE is a pleasure to do enduro business with.

But the bike's agility extracts a price in terms of stability. The PE develops a wobble at high speed in deep sand or any extremely loose soil. Again, the lack of weight makes life easier, reducing the wobble to harmlessness. But trying to counteract the quiver still will demand a healthy chunk of attention.

Actually, the PE's weight—229 pounds—is slightly heavy for a 175, but it's still lighter than any 250, and the machine feels like it weighs less than its numbers would lead you to believe. Nothing is free, however, and the PE, like all 175s, forces a tradeoff in power. That tradeoff is minimized because the Suzuki produces more top-end horsepower than any other 175cc enduro machine we've tested. But Suzuki's search for horses led to the sacrifice of some of the low-end power that last year's PE had. Much of the difference in power stems from porting changes. Inside the barrel, both the intake and exhaust ports have been raised to increase top-end output. And the head gasket is 0.5mm thinner so

Continued

Charting the Changes

Engine: The intake port is 3mm higher and the top of the exhaust port is 0.5mm higher than on last year's PE175. To maintain close to last year's compression ratio, the new PE's head gasket is 0.5mm thinner. The exhaust pipe was redesigned to enhance high-rpm horsepower. Third through sixth gears all are lower but the final drive is taller (3.83:1 vs. 4.0:1) due to a two-tooth-smaller rear sprocket.

Suspension: The PE's Kayaba fork is new and has approximately half an inch more travel than last year's. The Full Floater single-shock suspension design is a first for the PE. The shock is manufactured by Kayaba and features four-way adjustable rebound damping.

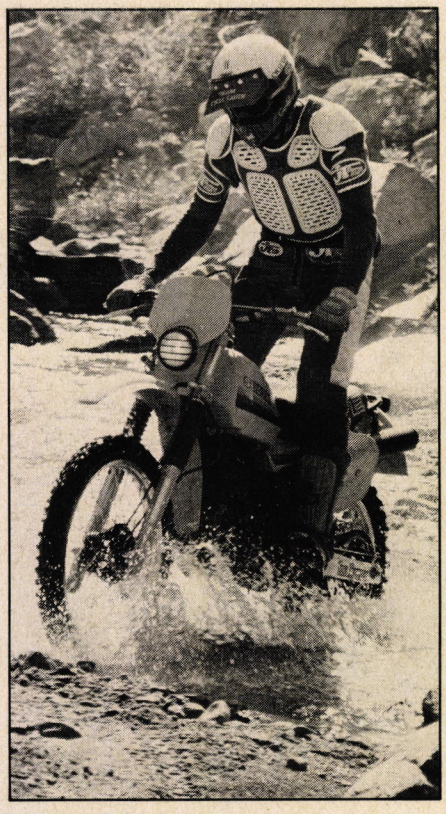
Chassis: Steering-head angle on the PE's all-new frame is steeper than on previous models, going from 29.8 to 28.0 degrees from vertical. Trail is down to 4.45 inches.

Details: Straight-pull spokes are laced to new hubs at both ends. The brake and shift levers fold and are spring-loaded. The hand-lever cable adjusters now have spring-loaded detents that allow the rider to alter front-brake and clutch freeplay with just his fingers.

that the compression ratio is close to the same as before. The pipe also has been redesigned to increase the machine's high-rpm performance.

And on top, the PE pulls strongly enough to be compared with 250-class hardware. It's not going to win any drags against the quarter-liters, but enduros aren't dragraces. And when kept on top of the power curve, a PE can follow a bigger machine anywhere. Getting there just means using a different technique. Steep hills require quick downshifting and a more alert frame of mind than would be necessary on a 250. And when the near-vertical lip at the top of the hill approaches, the clutch needs to be worked just right. With a slight amount of pressure on the clutch lever, the clutch will slip enough to keep the engine in the middle of its power zone. But the PE pilot must be careful not to fall off the powerband. Once he does, his best salvation is to downshift. Waiting for the 175 to drag itself back into its prime rev range without clutch- or shift-assistance can take more time than any competitive enduro rider will be willing to spend.

From that, don't conclude that the PE has no low-end power. It's just that the bottom seems weak by comparison to the top.



Suzuki's only 1982 enduro weapon

175cc of anti-250 artillery.

The PE can't lug as low as a Kawasaki KDX175 or a Yamaha IT175, but it does have solid power in the basement. A play-bike pace is no problem for the Suzuki, but it's capable of more, and the rider can't resist the temptation to keep it singing. And that means shifting. Considerably more shifting than a 250 or Open bike would require. More shifting, even, than most modern 175s. The Suzuki will get you through enduro sections faster than any other machine its size, but your left foot will have to pay the price.

Because the machine's personality is so much more hyperactive than last year's PE, Suzuki has squeezed the gearbox ratios together. First and second are unchanged, but third, fourth, fifth and sixth all are lower (numerically higher). Final-drive gearing is higher, so the end result is a gearbox that is taller in the initial gears but virtually the same in the others.

The new motor works well with its new gearbox and new power characteristics. There are some things on the PE, however, that didn't have to be totally changed before they worked. Like the quick-change rear wheel, which is one of the best designs in the business. The brake, rear sprocket and chain don't even have to be touched to get the wheel off, for they remain attached to the swingarm. We discovered how easy the whole procedure is when a thorn found its way into the PE's rear tire while we were testing about 20 miles south of absolutely nowhere. We wedged the PE between a rock and its kickstand and had the wheel off in seconds. And if the PE had Suzuki's optional centerstand, we would have been back on the trail even sooner.

The wheel itself is new, though, incorporating the straight-pull spoke design found on RM motocrossers. But even though the spoke change necessitated new front and rear hubs, the brakes are the same as last year's, which is to say adequate. The front brake, although progressive, requires more pressure than it should,

COMPARATIVE TEST DATA:

Make & Model	Wheel Travel Front/Rear, in.	Weight (fuel tank empty), lb.	Weight bias Front/ Rear percent	Steering head angle/ Trail degree/inches	Transmission, number of speeds
Suzuki PE175–'82	10.0/9.8	229	45.9/54.1	28.0/4.4	6
Kawasaki KDX175–'82	9.6/10.5	227	46.3/53.7	28.0/4.7	6
Yamaha IT175–'82	10.2/11.2	216	47.0/53.0	28.5/4.9	6
Honda XR200–'81	9.0/10.2	228	45.2/54.8	28.4/4.9	6
Husqvarna 250WR–'82	10.6/10.7	236	45.0/55.0	30.0/6.0	6
Yamaha IT250–'82	9.5/11.8	239	45.6/54.4	29.0/5.0	6

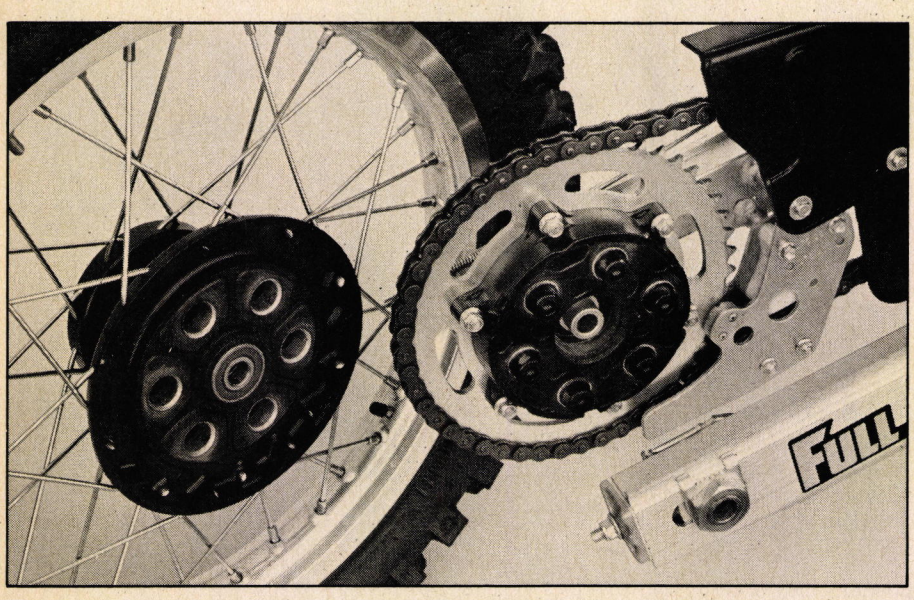
and while the rear will drag you down to a stop more effectively than the front, it still is a shade weak by enduro standards.

Both brakes, however, are well waterproofed, as are the dual airboxes and the electrical system. The detailing of the PE shows all the earmarks of a good enduro machine. No bike is crashproof, but losing arguments with trees, rocks and enduro sections on the PE isn't likely to cause disabling damage. Both the shift and rear brake levers are of the folding variety, and the throttle cable runs parallel to the handlebar where it exits the gear-type straight-pull twistgrip. And the 15-watt headlight is protected from harm by a metal guard.

The features that the PE lacks are few and trivial. But a welcome addition the next time around would be a speedometer. And another selection in tires would be even better received. The stock Bridgestone M20s looked like lumpy roadracing slicks after just days of riding.

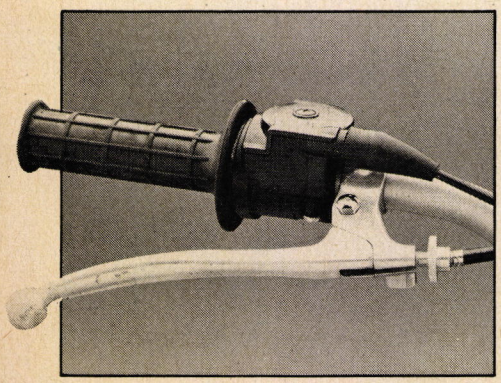
These certainly aren't points that would be cause for complaint on an average trailbike, but the PE175 isn't an average trailbike. This machine was created for one purpose only—to compete. Sure, there are many riders who will buy the PE so the wife or kids can tag along on a Sunday of cowtrailing. And those riders will be happy with it. The PE handles forgivingly and the engine can be perfectly content cruising at low rpm. But those people will never appreciate it for what it is: the best 175cc enduro machine on the market.

But the PE *isn't* the best anysize enduro machine you can buy. Its few flaws drag it down from Swedish-iron level and leave it to rule over the small-bores. And if in the minds of the more hard-nosed enduro riders riding the best 175 isn't enough, then consider this: The factors that hold the PE back aren't due to its size as much as to other designed-in limitations. And with the new-born emphasis in serious 175 competition machinery, it's only a matter of time before a 175 provides a final answer to the enduro size-question. ●



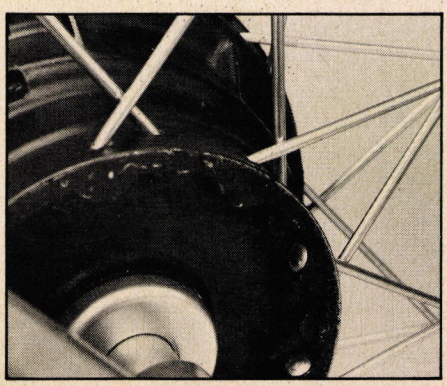
Suzuki's quick-change rear wheel unplugs from the sprocket and brake in seconds

So the rider won't be flat tired after some mid-enduro wheel work.



Crash-resistant straight-pull throttle

And cable adjusters for the tool-less.



Straight-pull spokes join hub to rim

The PE is RMed with MX tricks.

Ride Review

• For the last two years I've been waiting, wondering what it would take to pry Kawasaki's phenomenal KDX175 out of my heart, as well as from under my Countdown Combo enduro timer.

Well, I need wait no more. That replacement has finally arrived. It's yellow, it has "PE" emblazoned on its seat, and it can jet away from a KDX as easily as the Roadrunner can leave the coyote eating his dust.

Now, I know that the KDX has more low-rpm lugging ability and better high-speed stability than the PE, and that the Kawasaki is more forgiving than any enduro bike in captivity, but I still can make better time on the PE just about anywhere. It generates more raw horsepower than the KDX, which gives it noticeably faster acceleration on the open trails; the PE turns more quickly, despite having steering geometry similar to the Kawasaki's, and that allows it to snake through the tight woods faster and easier; and when you combine that with a superior suspension that smoothes out any and all trail nasties more efficiently, and top off the whole works with ergonomics that actually fit my six-foot-one frame, it's easy to see why there's a new love in my enduro life. Maybe I'm fickle, but I'm no fool. I know a winner when I see one. *—Paul Dean*

• I've often been asked which bike I'd buy if the government, my wife or the bank manager said I could have only one. I've never really answered the question because there are so many good machines and not one stands head and shoulders above the rest. But Suzuki's just supplied me with an answer for that question: the PE175.

I know a lot of you will look at me strangely for my choice; after all, 175s aren't serious bikes anyway. Right? Wrong; the PE175 not only is a serious bike but it's also fun, and above all it makes me look and feel good. It has enough low end to grunt through the gnarliest of enduro sections, and enough horsepower to make the trees blurr on any trail. But, in keeping with its 175cc heritage, the PE can be wound open all day without getting me in over my head. I come away from every ride feeling that I've ridden harder and faster than ever before.

And because the PE feels as light as a racer's bank balance, it doesn't tire me out. Its full-sized features fit my six-foot-two frame even better than some 250s. So while I hope the government, my wife or the bank never asks me to make the decision, at least there's a choice that I can live with. *—David Dewhurst*

CYCLE GUIDE SPECIFICATIONS

Suzuki PE175Z — enduro

IMPORTER: U.S. Suzuki Motor Corporation, 3251 East Imperial Highway, Brea, California 92621

SUGGESTED RETAIL PRICE: $1529

ENGINE

Type ..... two-stroke vertical single
Port arrangement ..... one piston-controlled intake, one reed-valve-controlled intake, four main transfers, two booster transfers, one exhaust
Bore and stroke ..... 62.0mm x 57.0mm
Displacement 172.1cc
Compression ratio (corrected) 7.9:1
Carburetion ..... one 34mm Mikuni slide/needle
Air filter .... dual washable oiled foam two-stage elements
Lubrication ..... pre-mixed fuel and oil
Starting system ..... primary kick
Ignition ..... external-rotor magneto CDI
Charging system ..... none; direct AC lighting

DRIVETRAIN

Primary drive ..... straight-cut gears; 2.762:1 ratio
Clutch ..... wet, multi-plate
Final drive ..... #520 chain (5/8-in. pitch, 1/4-in. width); 3.833:1 (46/12) ratio

Gear	Internal gear ratio	Overall gear ratio	MPH per 1000 RPM
I	3.091	32.724	2.4
II	2.214	23.443	3.3
III	1.706	18.061	4.3
IV	1.353	14.324	5.4
V	1.091	11.550	6.7
VI	0.913	9.667	8.0

SUSPENSION/WHEEL TRAVEL

Front ..... Kayaba air-spring, 38mm stanchion tube diameter/10.0 in. (254mm)
Rear ..... Kayaba single shock, 10mm spring preload adjustment, 4-way adjustable rebound damping/ 9.8 in. (249mm)

BRAKES

Front ..... drum, single-leading shoe
Rear ..... drum, single-leading shoe, rod-and linkage-operated

TIRES

Front ..... 3.00 x 21 Bridgestone Motocross M25
Rear ..... 4.00 x 18 Bridgestone Motocross M20

DIMENSIONS AND CAPACITIES

Weight ..... 229 lbs. (104kg)
Weight distribution ..... 45.9% front, 54.1% rear
Wheelbase ..... 56.8 to 58.2 in. (1443 to 1478mm)
Seat height ..... 36.3 in. (922mm)
Handlebar width ..... 32.3 in. (820mm)
Footpeg height ..... 16.0 in. (406mm)
Ground clearance ..... 12.5 in. (317mm), at skid bars
Steering head angle ..... 28.0 degrees from vertical
Front wheel trail ..... 4.45 in. (113mm)
Frame ..... tubular chromoly steel, single front downtube
Fuel tank ..... plastic, 3.3 gal. (12.5*l*), no reserve
Instrumentation ..... tripmeter resettable in tenths

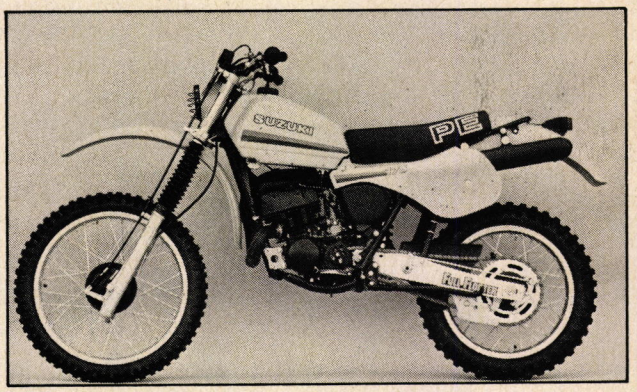
PERFORMANCE

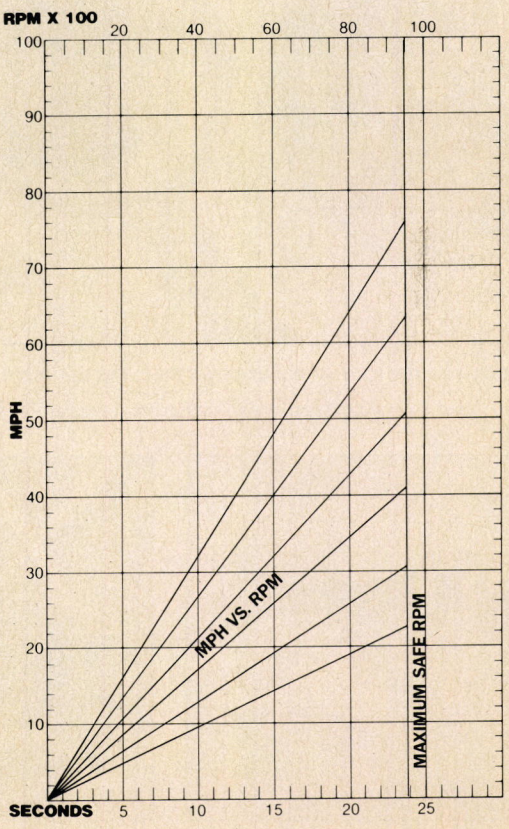
Top speed (observed) ..... 75 mph (121 kph)

WARRANTY: none

AVAILABLE COLOR: yellow only

All weights and measurements are taken with machine unladen and fuel tank empty





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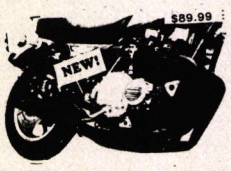
SUPERBIKE FILTER

State model when ordering. Example of some models:
CB900, KZ750/4, GS1000 ... **$19.99**
Z1, KZ900, KZ1000 ... **$19.99**
CB750's ... **$19.99**
RD250/350/400 ... **$ 9.99**



4 into 1 HEADERS **$89.99**

Black, with megaphone complete 1st quality Honda, Yamaha, Suzuki, Kawasaki.

QT FAIRING

Available in blk/wht & comes w/smoke shield. Universal mounts.
Painted ... **$69.95**
Sq. and round headlight
Unpainted ... **$44.95**

¼ CAFE FAIRING

Cafe fairing comes w/smoke shield. Universal mounts to fit all popular motorcycles. Blk/Wht.
Painted ... **$49.95**
Unpainted ... **$29.99**

DOW CYCLE COVERS

X45 Standard - no accessories ... **$29.99**
X50 Deluxe - windshield backrest ... **$34.99**
X100 Full Dress - fairings, bags, trunk ... **$39.99**
X40 Fairing Cover - Fairing Only ... **$26.99**

"JARDINE TYPE SHIELD"
$45.00

Another Mgf's Closeout. **Limited Supply.** Distributor couldn't buy so we did. Never again an offer like this one.

FAIRING STYLE WINDSHIELD

Available in clear or smoke. Measures 38¾" W by 27" H.
Clear ... **$39.95**
Smoke ... **$44.95**

SPIRIT FAIRING
$149.99

Fairing. Complete w/shield & mount. Headlight & side reflectors, locking storage compt. Blk/Wht.

TRAVELER FAIRING
$249.99

Complete w/windshield mount, headlight & turnsignals. Blk/Wht.

GOLDENSTATE FAIRING
$199.99

Sq. headlight, locking covers, leading edge lights. Avail. in blk. only. Incl: shield & mount. Measures 25½ W. Shield is 21" H

CYBERLITE
Red or Amber **$99.99**

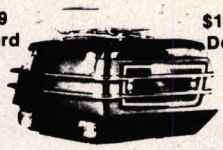
"Malcolm Smith"
Ballistic Saddlebags
$114.99

"Slip Streamer"
Stowaway **$99.99**

$59.99 Standard **$99.99 Deluxe**

COMMUTER TRAVEL TRUNK - 18"wx18"lx14"h. Deluxe, comes w/rack top, rails & pad.

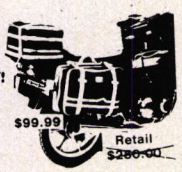
$99.99 Standard **$139.99 Deluxe**



ASPENCADDY TRAVEL TRUNK - Dual lights on rear. 25"wx21"lx14"h. Deluxe version comes w/rack top, rails & pad.

KRAUSER SIDE LUGGAGE

Star Luggage 40 litre **$289.99** (inc. T set)
Starlet 25 litre **$174.99** (incl. T set)
Adaptor Kit **$30.99** (state model m/c)



OLYMPIC SOFT SIDE & TOP LUGGAGE

Lockable detachable like Krauser, made from nylon fabric. Blk/Brn/Silver

Side Luggage w/T set **$99.99**
Adaptor Kit **$30.99**
Top Luggage **$39.99**

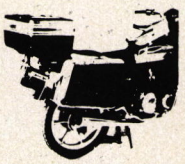
$49.99 Standard **$89.99 Deluxe**

ROADRUNNER TRAVEL TRUNK - 14"wx17"lx11"h. Deluxe version, comes w/rack top, rails & pad.

Tourmaster Suit	**$134.99**
Jacket	**$89.99**
Pants	**$79.99**
Dri Rider One Piece	**$65.99**
Malcolm Smith Suit	**$129.99**
Jacket	**$79.99**
Pants	**$65.99**

$79.99 Standard **$119.99 Deluxe**

CALAFIA ROADRUNNER SADDLEBAGS - 7½"wx22"lx14"h. Deluxe bags come w/chrome side rails.



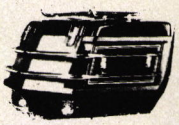
OLYMPIC SIDE LUGGAGE 35 LITRE

Luggage incl. T set **$149.99**
Adaptor Kit **$ 30.99**

OLYMPIC TANK BAG

Blk. Vinyl Tank Bag **$18.99**
Silver Vinyl Tank Bag **$20.99**
Blk. or Silver Nylon 13½x9½x4½ **$22.99**
Black Vinyl 15x10 3¾/7½ **$28.99**

$69.99 Standard **$109.99 Deluxe**



TAA TRAVEL TRUNK - Dual lights on rear. 18"wx15"lx13"h. Deluxe version includes rack top, pad & rails.

TAA SADDLEBAGS
7½"wx21½"lx13"h. Deluxe version comes w/chrome side rails.

Standard **$109.99**
Deluxe **$139.99**

Built-in tail/stop light. Measures 10"wx21½"lx13"h.

Standard **$129.99**
Deluxe **$159.99**

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Bomber Jack **$134.99**
Classic Combi Jacket **$164.99**
City Jeans **$119.99**

Dunlop K291S

510x17	**$58.99**
425x18	**$54.99**
510x18	**$60.99**
140/80v x 18	**$65.99**
325x19	**$49.99**
350x19	**$52.99**

Dunlop K291T

510x16	**$59.99**
510x17	**$58.99**
425x18	**$51.99**
325x19	**$44.99**
350x19	**$47.99**

Dunlop K181

510x16	**$51.99**
510x17	**$49.99**
425x18	**$46.99**
510x18	**$55.99**
410x18	**$37.99**
325x19	**$39.99**
410x19	**$42.99**

RWL Add $8.00

Dunlop K81

360x18	**$33.99**
410x18	**$41.99**
425/85x18	**$44.99**
360x19	**$37.99**
410x19	**$42.99**

Dunlop K87

510x16	**$43.99**
450x17	$38.99
250x18	**$32.99**
400x18	**$40.99**

Continental RB-2F

300Sx18	**$34.99**
325Hx18	**$37.99**
350Hx18	**$41.99**
325Hx19	**$42.99**
350Hx19	**$45.99**

Tubeless Add $5.00

Continental K112R

510Sx16	**$54.99**
450Hx17	**$53.99**
350Hx18	**$43.99**
400Hx18	**$49.99**
425Hx18	**$51.99**
510Hx18	**$52.99**

Tubeless Add $5.00

Michelin M45

350Hx18	**$41.99**
400Hx18	**$44.99**
425/85v x 18	**$49.99**
350Hx19	**$41.99**

Michelin M48

510v x 17	**$56.99**
510v x 17 TL	**$61.99**
510 x 18	**$56.99**

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510x16	**$64.99**
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400x18	**$65.99**
425x18	**$67.99**
325x19	**$53.99**
375x19	**$56.99**
325x18	**$50.99**

Eagle GT II

510x16	**$57.99**
510x17	**$57.99**
400x18	**$52.99**
450x18	**$56.99**
510x18	**$64.99**
350x19	**$43.99**

Tubeless Add $7.00

Eagle AT

510x16	**$46.99**
350x18	**$40.99**
400x18	**$43.99**
450x18	**$47.99**
325x19	**$36.99**

RWL Add $9.00

"RB2 Copy

325H-18	**$22.99**
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325Hx19	**$23.99**
350Hx19	**$26.99**
325Hx18 TL	**$26.99**
350Hx18 TL	**$29.99**
325Hx19 TL	**$27.99**
350Hx19TL	**$31.99**

"K112" Copy

510Hx16	**$38.99**
510H-17A	**$41.99**
410Hx18	**$29.99**
425/85Hx18	**$31.99**
510/85Hx18	**$37.99**
510Hx16TL	**$47.99**
510Hx17TL	**$49.99**
410Hx18 TL	**$35.99**
425/85Hx18TL	**$36.88**
510/85Hx18 TL	**$43.99**

"K81" copy

510x16	**$32.99**
510x17	**$34.99**
350/85-18	**$21.99**
400/85x18	**$27.99**
425x85x18	**$28.99**
450/85x18	**$33.99**
520x18	**$35.99**

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COMPARISON MINITEST:

Kawasaki KDX175-A3

The King meets the Suzuki PE175 in an enduro coup d'etat.

PHOTOGRAPHY © 1982 DAVID DEWHURST

In its third year, the KDX175 remains a top contender in the 200cc enduro class

But time and Suzuki have caught up, so it's no longer a one-bike show.

• Being King is no big deal. Year by year, motorcycles come and go in momentary flashes of brilliance, each of them vastly changed and incredibly improved. And each year the one that proves to be a little more improved than the rest is appointed to reign over its class until the next time around, when something younger and faster invariably wrestles the crown away.

It's remaining on top that's difficult, and that's what makes the Kawasaki KDX175 different. When it was released in 1980 it singlehandedly set all-new standards for 175cc enduro machinery, catching the other manufacturers asleep at the drawing board. A year later it still was a head and barrel above the crowd—and the amazing thing was that for the most part, it was *unchanged.*

But three years in the life of a modern moto-monarch is a long time, and now the KDX's reign is being seriously challenged. The Suzuki PE175Z is the golden boy of the newly launched age of serious 175cc competition machinery, and its eyes are set on the Kawasaki's crown.

The KDX defends its title with the same attributes as in previous years. The engine basically is unchanged. The intake port has been given a new shape and two bridges, and both the rod bearings are slightly wider. The only other engine change is the carburetor, which now has an oval venturi that Kawasaki claims is for quicker throttle response.

Throttle response always has been excellent on the KDX, especially down low. The Kawasaki's horsepower comes on lower, stronger and smoother than anything on the small side of a 250. A Yamaha IT175J comes close in torque, but the KDX will pull away in the midrange. Above that, the KDX's muscle begins to thin out. The PE Suzuki's power is the opposite, building from so-so low end to a healthy high-rpm punch, making it a machine for a different type of riding.

Situations where the rider has no idea what to expect next favor the KDX's power curve. When you come around a quick bend and there's a sudden uphill that gives you no time to think about downshifting, and just barely enough time to grab a handful of throttle, the KDX will jump at the opportunity to show what it can do. The revs can go much lower than any seasoned 175 rider would willingly let them drop, but the KDX will keep running well after the point where it has a good excuse to stop. It won't produce gobs of horsepower down there, but it *will* keep going.

The PE will be able to power its way through the same section, but the rider will have to work harder. A sudden drop in speed doesn't cramp the PE's style *too* much, but the no-run point will come earlier than on the KDX, so the rider had better be ready to slip the clutch to maintain his pace.

Terrain that holds fewer surprises but just as much difficulty is where the KDX loses its advantage. The PE rider will be able to use a sizable top-end advantage to outride the Kawasaki pilot. Horsepower has always been a hard act to beat, and the Suzuki has a wide

margin on the Kawasaki.

Kawasaki handling, though, gives nothing away. A long wheelbase gives the KDX a good helping of stability. Narrow trails with piles of softball-size rocks can throw any bike/rider combination off balance, but the KDX can correct most of the trouble, whether it was caused by the terrain or the rider. The wheelbase is only partly responsible for the KDX's ability to hold a line—the PE is much less stable but only an inch shorter. One other factor is the Kawasaki's overall riding position, which is relatively far forward, putting most of the rider's weight on the front wheel. That keeps the front of the machine going straight, and the back never strays far out of line.

KAWASAKI KDX175

Importer: Kawasaki Motors Corporation
2009 East Edinger Avenue
Santa Ana, California 92711

Category	enduro
Suggested retail price	$1549
Engine type	two-stroke vertical single
Port arrangement	one reed-valve-controlled intake, four transfers, one booster transfer, one exhaust
Bore and stroke	66.0mm x 50.6mm
Displacement	173.1cc
Compression ratio (corrected)	7.6:1
Carburetion	one 34mm Mikuni oval-venturi slide/needle
Gearbox	6-speed
Front fork/wheel travel	Kayaba air-spring, 36mm stanchion tube diameter/9.6 in. (244mm)
Rear shocks/wheel travel	single Kayaba shock, 12mm spring preload adj./10.5 in. (267mm)
Wheelbase	57.6 in. to 58.8 in. (1463mm to 1494mm)
Seat height	36.8 in. (935mm)
Weight	227 lbs. (103kg)
Top speed (observed)	75 mph (121 kph)
Warranty	90 days
Available color	green only

The handling and power of the KDX and PE are at opposite ends of the enduro scale

But both machines are tuned to the same trophy-winning frequency.

Through turns the KDX doesn't handle quite like anything else. It steers quickly enough to initiate an instant direction change, but the rider must learn how to make the rear end follow. A dab on the rear brake or a blip of the throttle will accomplish the task, but coasting through the turn just doesn't feel secure. Once the right technique is learned, the Kawasaki is a quick and easy machine to maneuver through twisty sections.

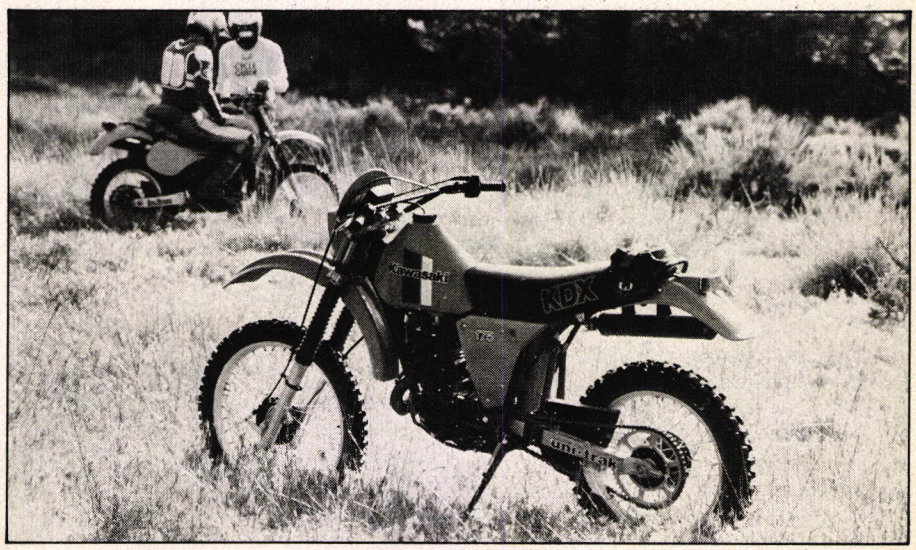
Like the KDX, the PE is a top-rate turner, although it doesn't require as much time to learn. Both machines will come out of the tight stuff dead-even, but when the going gets rough, the Kawasaki must take a back seat to the Suzuki. The Uni-Trak is identical to the 1980 version, which was the first year for any vertically mounted single-shock rear-suspension design. And while it was a leap forward two years ago, time has a way of steamrolling all technological advances and flattening them into obsolescence. The Uni-Trak is far from obsolete, but the more advanced rising-rate design of the Suzuki has eclipsed *everything* in the enduro realm. The KDX will buck in rapid successions of whoops, as if packing down from either a spring rate that is too low, or from too much rebound damping. Also, the forward-mounted pegs on the KDX mean the rider must compensate by taking up an exaggerated rearward riding stance to keep the machine going straight. Widely spaced bumps and landings from tall jumps are no trouble for the Uni-Trak. But the KDX occasionally will bottom with a harsh clunk when the terrain gets too rough.

The PE can take on the same ground as the Kawasaki, but goes on to take whoops and really rough terrain more smoothly. And when the PE bottoms, it's never with the noticeable impact of the KDX.

Both machines work well up front. Kawasaki uses the same Kayaba fork that came on the machine in 1980, the only difference being the aircaps that were added last year. The fork works smoothly on all types of terrain and will carry you through any enduro without a hint of flex while delivering a smooth ride all the way.

The top-rate fork combines with the KDX's stability and low-end grunt to show how it has remained on top of the small-bore enduro empire through '80 and '81. But 1982 has no respect for former rulers, and with the advent of the PE, that's what the KDX has become. No doubt Kawasaki still will rule over many trail rides, but when it comes to winning enduros, the Suzuki is King.

—Ron Lawson



MINITEST:

Suzuki GS1100G

Still curling the toes of all kinds of riding boots.

PHOTOGRAPHY © 1982 DAVID DEWHURST

Suzuki's GS1100G can make its home anywhere from the flat stretches of a freeway to the twisty turns of a canyon road

It's as much a sportbike for tourers as it is a touring machine for street racers.

• Suzuki didn't invent sliced bread; but it *did* provide the GS1000G, a literbike that proved once and for all that a shaft-drive motorcycle could take on roads normally reserved for sportbikes.

Reactionary sport riders' toes curled in their scuffed Lewis Boots—a 550-pound shaftie carving an apex as well as their clip-on/rearset/fairing-festooned roadsters? Ha, they scoffed, and charged into the next series of esses. With the GS1000G looking right up their tailpipes.

Tourers only shrugged. The liter-G was steady and comfortable for chugging long distances, reason enough for them to like it. They left the sport-touring controversy created by the G-model behind. They were far too busy horizon-hunting to be concerned.

The liter-G passed on in 1982, but not into obscurity. The model is now the GS1100G. The current engine is bigger, having been stretched out to 1074cc—the same dimensions as the GS1100E. But there the comparison begins to get a little fuzzy. While the bore and stroke of the two 1100s are the same, the E-model has 16 valves to the G-model's eight. The 1100G's engine is largely unchanged from the liter-G's, but with heftier connecting rods to better support the 1100's larger pistons. And to help the G sip lower-octane unleaded fuel, the compression ratio was lowered to a milder 8.8:1.

The big news from the larger G isn't connecting rods or compression, though, it's power. Suzuki claims an increase of five horsepower for the new GS1100 shaftie. It's hard to sense that increase, though, since any indication of more power is going straight to the road, not to the rider. The G's dual-density seat not only is one of the best places to sit out a ride, it stops engine vibrations dead. And the chromed vibration-dampers at the ends of the handgrips further reduce any hot-rod vibes.

But a show of force has never been in character for the G. It still isn't. Instead, the smooth-running four pulls strong from idle right up to the 8500-rpm redline—the kind of power that both touring and sport riders never complain about. Neither group will complain about the mileage returned, either. Our maroon shaftie (also available in black) averaged from 42.5 to 48.3 mpg.

The GS1100G's handling—for both tour and sport—is cast in the GS1000G mold as well. The chassis is unchanged, and with the rear shocks' adjustable spring preload and rebound damping adjustments clicked to their No. 2 settings, there's a soft, cushy ride available for the freeway. But just a few clicks stiffer on the adjustments turns the mild-mannered GS1100G sport-tourer into a genuine peg-scraper. Racer Road becomes just another thoroughfare for the GS1100G. A good part of the bike's sport capability can be attributed to its near-neutral steering. When you point the G to an apex, it eagerly dives for the inside of the turn, never feeling like the 555-pound motorcycle that it is.

The unmemorable body lines of the 1000G have given way to a more distinctive styling, but the 1100G still doesn't turn heads with its chrome and paint. Instead, it quietly makes its statement through performance and handling. And when you have a bike that will charge into the horizon with the same authority it displays in straightening out a tangled stretch of road, that statement is forceful indeed. *—Dain Gingerelli*

SUZUKI GS1100G

Importer: U.S. Suzuki Motor Corporation
3251 East Imperial Highway
Brea, California 92621

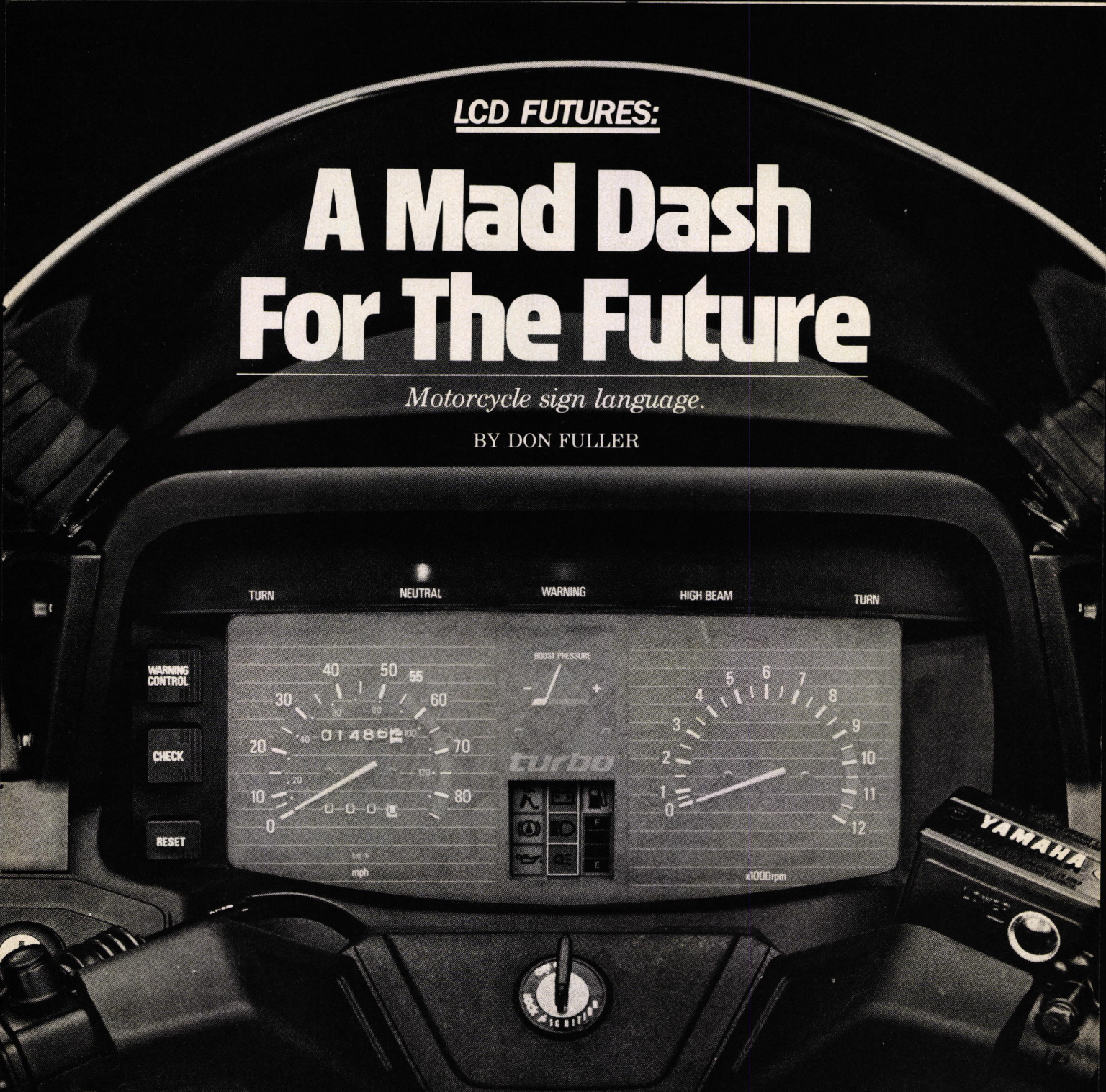
Category	street
Suggested retail price	$3999
Engine type	four-stroke transverse vertical four
Valve arrangement	double overhead camshafts
Bore and stroke	72.0mm x 66.0mm
Displacement	1074.9cc
Compression ratio	8.8:1
Carburetion	four 34mm Mikuni constant-vacuum
Gearbox	5-speed
Front fork/wheel travel	Showa air-spring, 37mm stanchion tube diameter/ 5.9 in. (150mm)
Rear shocks/wheel travel	dual Kayaba shocks, 5-way adjustable spring preload, 4-way adjustable rebound damping/4.8 in. (122mm)
Wheelbase	58.8 in. (1493mm)
Seat height	30.8 in. (782mm)
Weight	555 lbs. (252kg)
Best 1/4-mile acceleration	11.919 sec., 114.21 mph (184 kph)
Top speed (calculated)	137 mph (220 kph)
Stopping distance from 60 mph	138 ft. (42m)
Fuel consumption	42 to 48 mpg (18 to 20 km/l)
Warranty	12 months unlimited mileage
Available colors	black or maroon

LCD FUTURES:

A Mad Dash For The Future

Motorcycle sign language.

BY DON FULLER



• The electronics incursion into motorcycling is a *fait accompli*. Already, liquid crystals light up numbers for speedometers, tachometers and clocks; they flash warnings for a sidestand down or oil pressure low; information is given in pictorial, analog or digital form. Obviously figuring that a little knowledge can be a dangerous thing, today's motorcycle manufacturers have provided the rider with more information about his bike than he's ever had before.

How far will this go? The growth of electronics is limited only by the historically fragile barrier that limits imagination. Just a few years ago pong games on black & white screens were a novelty; now, practically every kid in the country is waging full color intergalactic warfare on a home TV set. Can the era of full-time, multi-function on-board computers on motorcycles be more than a few years away?

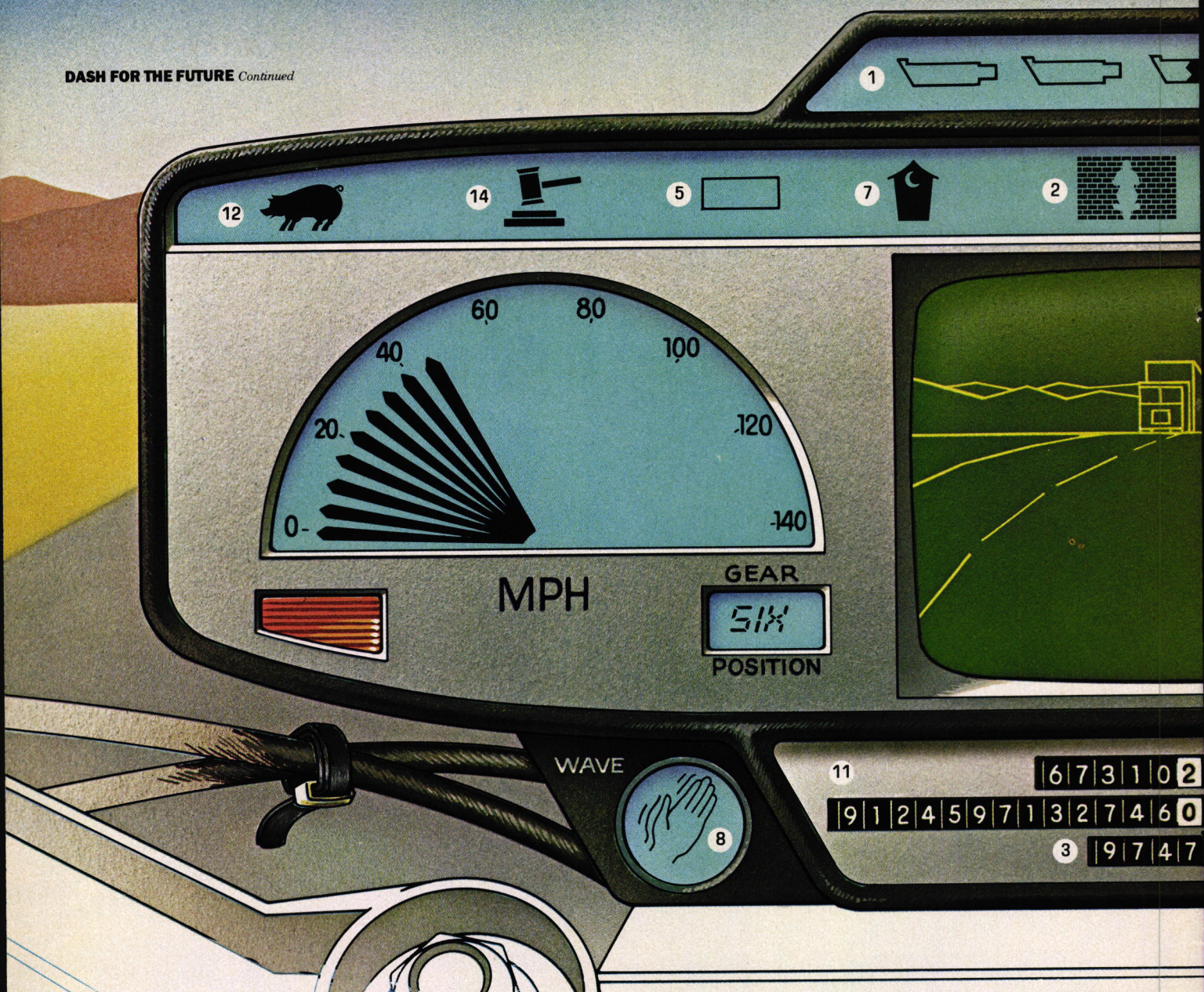
We at CYCLE GUIDE think not; that time is right around the corner. Just think: Information that didn't even exist before will be invented and placed right at your fingertips. Roadracers can have data for comparing rat-racing results by the time they reach the all-important bench-race finish line. Touring guys will have a whole new world of gadgetry for oneupmanship at tour-ins.

The possibilities are endless. Why not a minicam to bring back home movies of your vacation? Why not an instant replay of that last corner taken especially well? Why not a quick reference guide to the number of cases of food poisoning from the truck stop up ahead? Why not a digital readout of the phone number of the blonde in the Corvette? Why not, indeed?

And so, CYCLE GUIDE presents a few possibilities for future electronic wizardry on your motorcycle's dashboard. These concepts are the results of numerous consultations with some of the best minds in the industry; those minds sharpened to cutting edges, the meetings and sessions beyond counting kept running smoothly on effective lubricants to keep the individuals at their most objective and clear levels of thinking.

In doing so, we have moved the future closer. It is no longer just around the corner; it is now just around the edge of this page. All based on one underlying principle that is the *Guide* to our *Cycl*ing: Too much of a good thing is not enough.

Continued



Scraped-Peg Quotient 1

Sensors on the bike gather information, which is sifted to determine overall performance in the last set of twisties. Peg-to-pavement contact, with specific notations for severity and duration of contact, is taken into account, as are braking, acceleration, response time and adherence to The Line. When the rider reaches the straightaway again, he receives a rating—in number of pegs reduced to stubs—for general cornering prowess:

1—Take the bus
2—Strictly novice
3—Not bad, but no trophy
4—Qualified for canyon races
5—Kenny Roberts, move over!

Be Ware, Brake Wear 2

As brake wear reaches dangerous levels, the BW2 (Be Ware, Brake Wear) indicator warns the rider of the impending destruction of the motorcycle, the rider and the brick wall, the latter used for the Final Slowdown.

Running Resale 3

Actually, a rather simple device tied into the odometer. As the miles go up, the dollars go down, at a rate such that if the rider turns over the odometer, he also turns over the resale meter. Running Resale does not, however, take into account the "classic" or "collector's item" factors, nor the owner's ability to haggle with a dealer.

Unacceptably Prepared Cycle 4

As the motorcycle ages, relevant factors including maintenance record, total miles, number-of-times-to-redline, and frequency-of-chain-lubrication are stored on a bubble chip. When the bubble bursts, the display flashes a U.P.C. symbol, advising the owner it is time to sell. At the dealership, waving a scanner across the symbol gives an instant readout of current resale value, an analysis of interest rates, and the trade-in deal. Due to government edict, this display, and its stored information, must be tamperproof.

Unready Kilowatts (U.K. Warning) 5

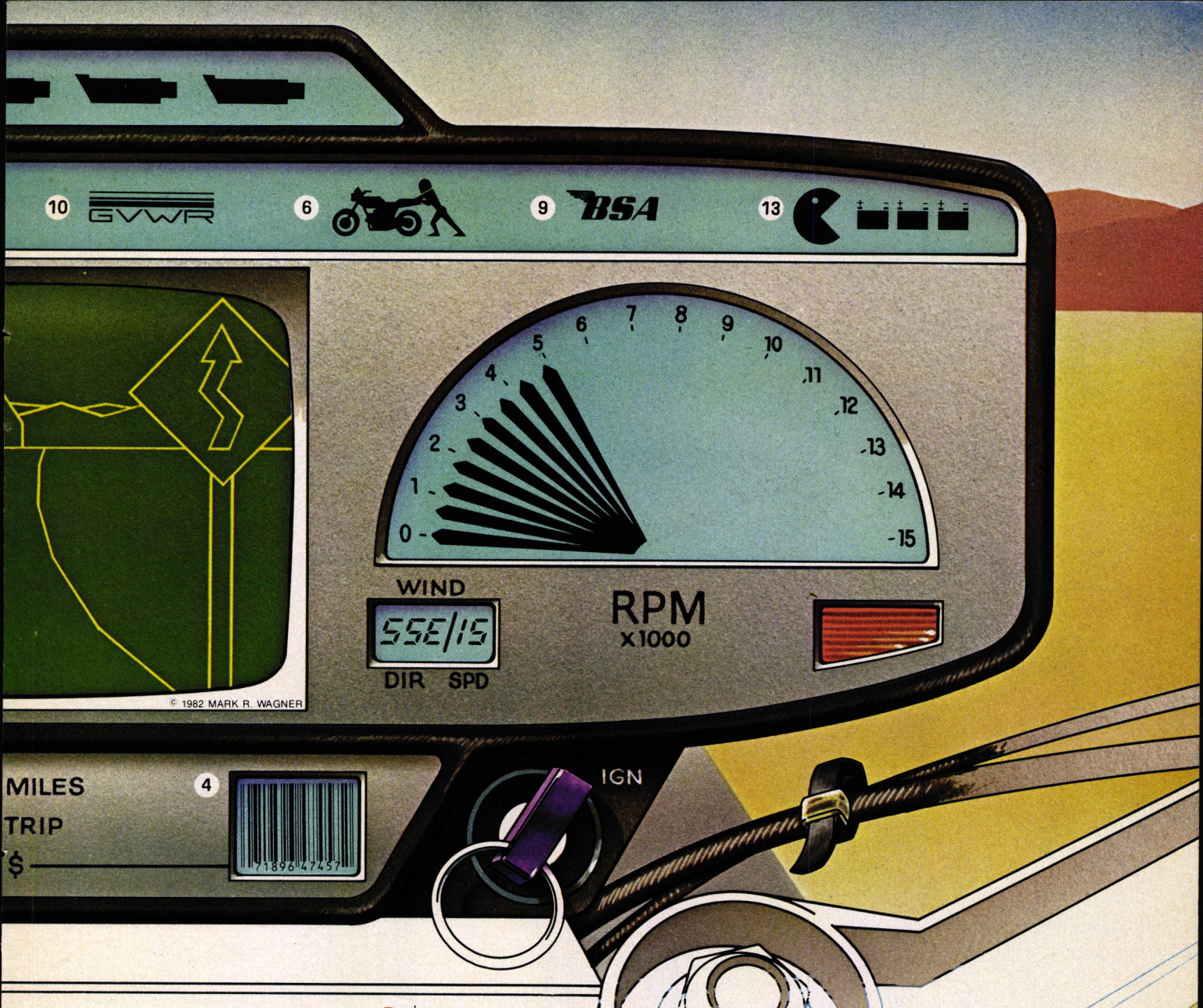
Upon occurrence of a complete electrical failure, the entire panel goes blank, indicating—appropriately—that there is no more electron flow to light it up. U.K. should not be confused with United Kingdom.

Out-Of-Petrol Symbol (OOPS) 6

Running out of gas on a motorcycle has predictable results. Unlike a car, you can't just lock it up and leave it. If the rider has ignored the fuel gauge and is running on reserve, the Out-Of-Petrol Symbol illustrates the logical consequences in a way that is universally understood.

Distance-To-Rest Stop 7

Any long-distance rider is concerned with the cruising range of two tanks—the bike's and his own. As the bike approaches the anticipated rest stop, the W.C. symbol appears, growing brighter with each tortured mile. Appropriately, the image is nearly blinding in the last mile.



Hi Sign 8

As one fellow touring rider approaches another, the Hi Sign comes on with a stationary hand. With decreasing closing distance, the hand begins a slow fraternal wave, increasing its frequency as the bike draws nearer. As the bikes pass, there's a final wave-off.

Catastrophic Oil Loss 9

With a sudden, traumatic and terminal oil loss, the display flashes with the traditional—and universal—symbol for such an occurrence: the BSA logo. Again, true to tradition, this warning is given only after the rings have seized the pistons in the bores, the bearings are melted to the journals and the valves are welded solid in the guides.

Grosser Verboten Wehickel Rating 10

For the benefit of those dummkopfs who don't know when to stop packing, this display indicates when the bike's Grosser Verboten Wehickel Rating (GVWR) is exceeded. If it's flattened to nothing, so is your reserve.

Ve haf ar vays.

Touring Trip Odometer 11

To prove the validity of claims for "Furthest Distance," or "Most Miles Traveled" awards at touring conclaves, the touring trip odometer should be sufficient to record the length of any trip. And since the trip odometer displays more digits than the bike's total-mileage odometer, it can record the owner's cumulative lifetime trip totals, even if his own miles far outstrip those of his current mount.

Caution: Overwide Passenger 12

Seat sensors measure total load and curvature of deflection. When the overload reaches critical mass, the display depicts this familiar admonishment. This information is valuable not only when determining weight shift in a corner, but also in planning maneuvers through tight traffic or figuring expected costs of the next lunch stop. Some bikes will be fitted with automatic transmissions designed to handle the overload—just put it in Pork.

Perilously Accessoried Cycle—Maximum Allowable Nonessentials 13

Since many riders just can't stop adding or switching on electrical accessories, as the electrical system approaches overload the battery symbol is progressively gobbled by the Perilously Accessoried Cycle—Maximum Allowable Nonessentials graphic—Pac-Man, for short.

Ticket Potentiometer 14

Recording simultaneously from the speedometer and tachometer, with additional bits fed from the video screen and Scraped-Peg Quotient, and accounting for the bike's color—red is worst, brown best—and finally matching actual average and maximum speeds with posted limits, the Ticket Potentiometer warns of your chances for a meeting with The Law. The faster the gavel pounds, the more likely you, too, soon will have your day in court. ●

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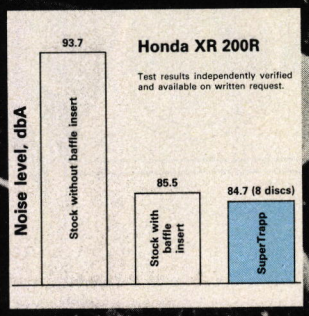

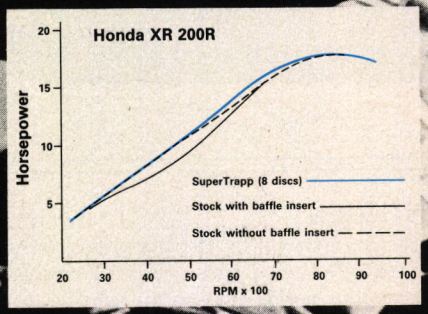

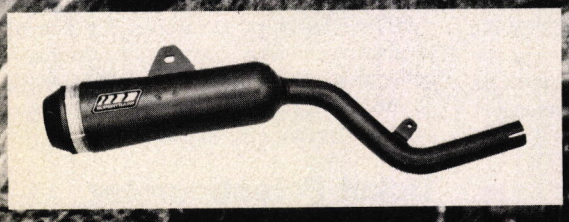

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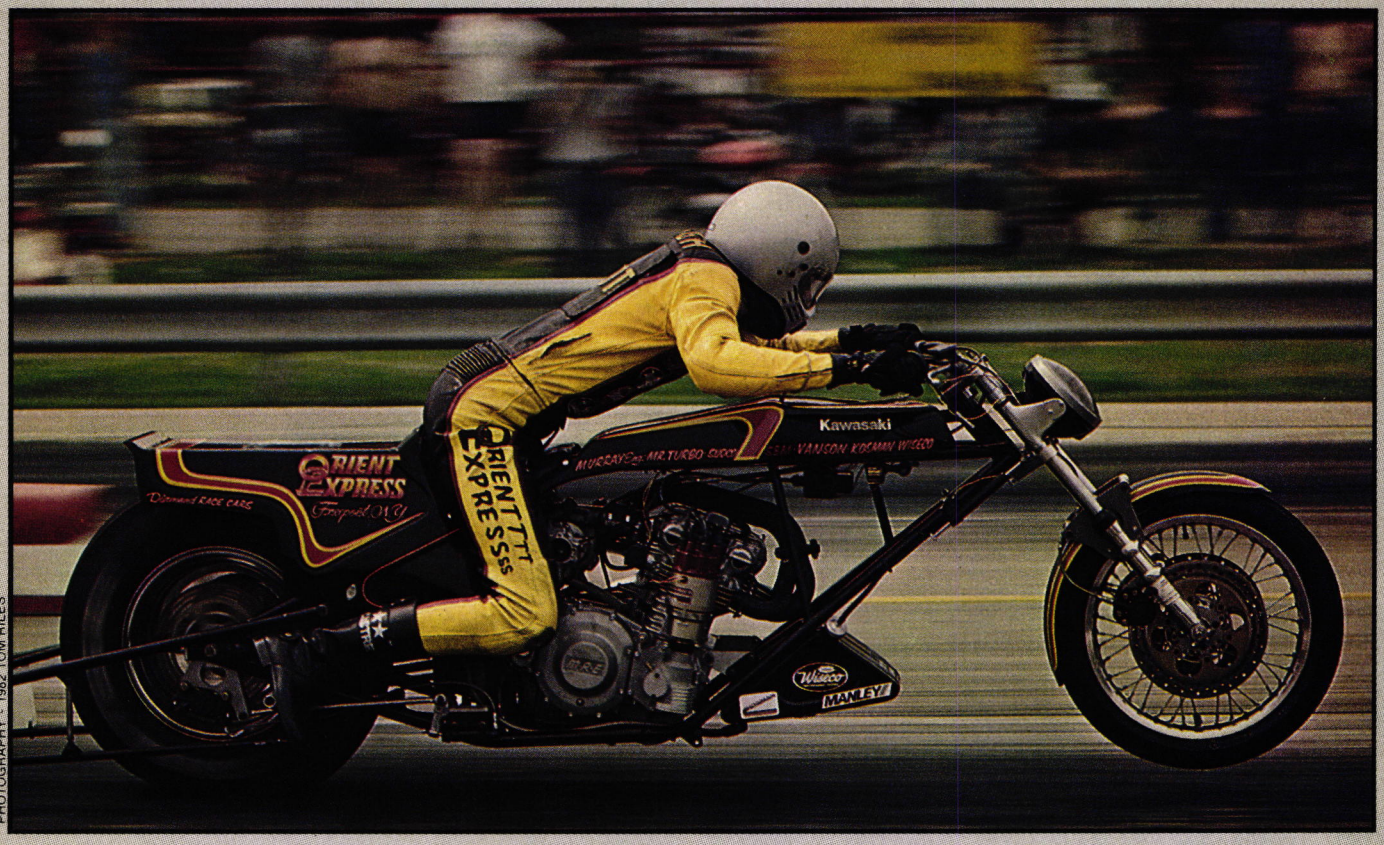

PHOTOGRAPHY © 1982 TOM RILES

Funny Bike Racing

Court jester, or the Really Big Show?

• Dragracers think of Top Fuel bikes as thoroughbreds; machines built for one purpose—to power through the quarter-mile. And just to show the motorcycle community that sprint racing has validity, dragracers developed the Pro Stock class. Essentially, Pro Stocks are slightly tamer Top Fuelers, using OEM-type gas tanks and fenders in order to resemble genuine street bikes.

And so with these two classes for showcase purposes, the quarter-mile clique has felt somewhat secure as a legitimate sport. There are the finely honed Top Fuelers for The Show, and the silhouette Pro Stockers for credibility.

But then Funny Bikes came along, and dragracing has never been the same. Funny Bikes are dragracing's bastard class. They're a combination of Top Fuel and Pro Stock. Funny Bikes wear the same lightweight fiberglass gas tanks and headlights as Pro Stockers, but beneath the cosmetics are motorcycles just a few ticks shy of pure Top Fuelers—thoroughbreds.

Funny Bikes owe their evolution to the use of turbocharging in American dragracing during the Seventies. The plumbed engines were, indeed, awesome, but other than the various turbo classes there was no place for them to race. For the most part turbobikes had to run against other pumper bikes only. And so there were normally aspirated bikes on one side of the pits, and the high-whining pressurized machines on the other.

Funny Bikes have changed all that, and now the International Drag Bike Association (IDBA) and National Motorcycle Racing Association (NMRA), the two major governing bodies for dragracing, each have similar rules for the class. Unlike Top Fuel, where the sky is the limit, the Funny Bike class has a general restriction on engine displacement and type of fuel burned. For instance, the NMRA rules allow nitro fuel only in supercharged engines under 900cc. Larger blown engines must use alcohol or gasoline. And the IDBA rule permits nitro only in normally aspirated engines up to 1200cc. The rules, obviously, are more involved, but the basic goal is to regulate the machinery in the class so one particular design doesn't dominate.

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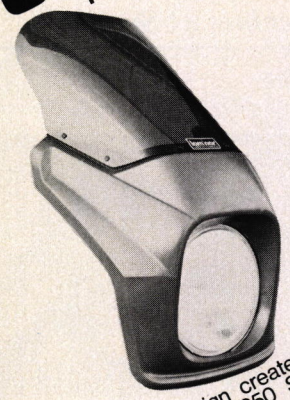

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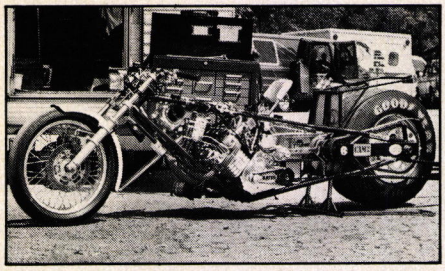
Perennial Funnybiker John Baugh

A fixture in the class.

There's another benefit to the formula-type rules: expense. Most Funny Bike racers agree that the current rule structure fosters low-budget racing, as compared to Top Fuel. Bill Hahn, builder of the Burns/Berry/Hahn Kawasaki Funny Bike wholeheartedly endorses the class: "These bikes are less expensive than Top Fuel, mainly because the nitro (for Top Fuel) is extremely hard on machinery." A good tuner, Hahn feels, can build a competitive bike without sinking so much money that a season-long program becomes impossible. The BBH bike is a showcase of what a Funny Bike can be, too. And it wins. Tony Lee, IDBA National Race Director cites the BBH bike as an example of how a small team "can come in without megabucks, and put a competitive, professionally prepared bike on the track."

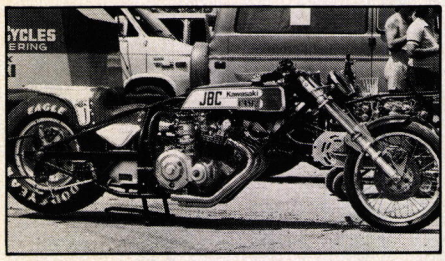
But perhaps the most successful—as far as winning is concerned—Funny Bike is the JBC Industries Kawasaki ridden by Bo O'Brochta. O'Brochta, a former Top Fuel champion, seems to fit his bike: He's trim, straightforward, and intent on winning. The bike, too, is straightforward, almost conservative in design by class standards. It has a nitro-burning fuel-injected Kawasaki engine in a stretched-out frame. All its speed components are arranged neatly around the package. Simplicity is the key.

And with O'Brochta's presence in the class this year, the Funny Bikes have taken another step toward center ring of The Show. Yet as successful as O'Brochta has been this year, he makes no secret of his affection for nitro-burning sprinters with unlimited design—Top Fuelers, the very class denied to him this year *because* of expense. O'Brochta, you see, is of the speed school that preaches nitro breeds horsepower, and horsepower makes The Show. It's the thundering horsepower that bellows out of a Top Fueler's pipes, and can make even the indifferent spectator's blood boil. So O'Brochta wants more horsepower—and speed—for the Funny Bike class, too: "The class should be expanded in terms of limitations to machinery . . . As long as the wheelbase, gas tank, fenders, headlight and general stock appearance are regulated, let the motors go to anything we can get." Translation: Speed. The kind of raw, brutal,



Burns/Berry/Hahn Kawasaki

A dragbike attached to a car tire.



O'Brochta's all-business Kawasaki

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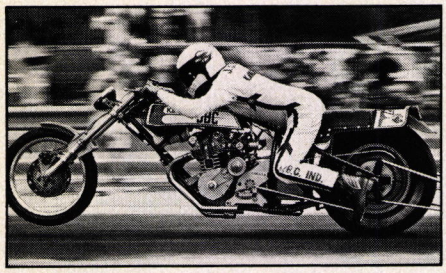
overwhelming speed you'll find in Top Fuel.

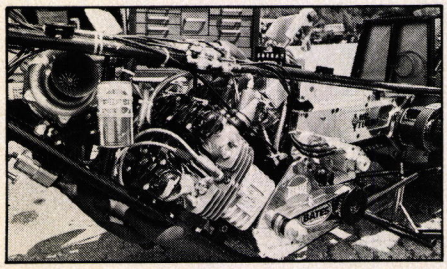
O'Brochta is adamant about bolstering the class for the sake of The Show. He continues, "If the class really wants to take off, they (IDBA and NMRA) must let us go to nitro, blowers *and* unlimited displacement." Sound like Top Fuel? He adds, "But keep the stock appearance."

Others, such as Hahn and Lee, argue that the future is in lower-cost equipment. Keep the racing within monetary reason, and there will still be a show like no other, they contend. And so far The Funny Bike Show has received high ratings from the spectators. Now we'll just have to wait and see if the networks renew it for next season. Who knows, it might even make prime time. —*Dain Gingerelli*



Greenlight artist Bo O'Brochta

Into the wild nitro yonder.



The masterful BBH turbo-Kawasaki

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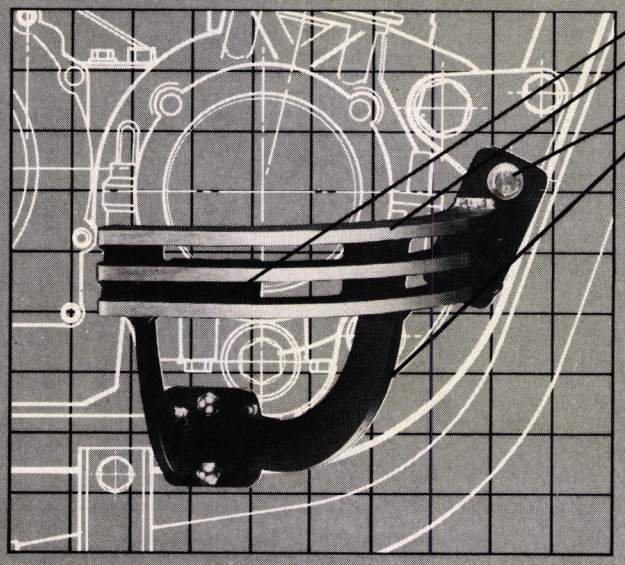

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ROADRACING:

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Kenny Roberts drifting and sliding his Yamaha with the big Dunlop slick

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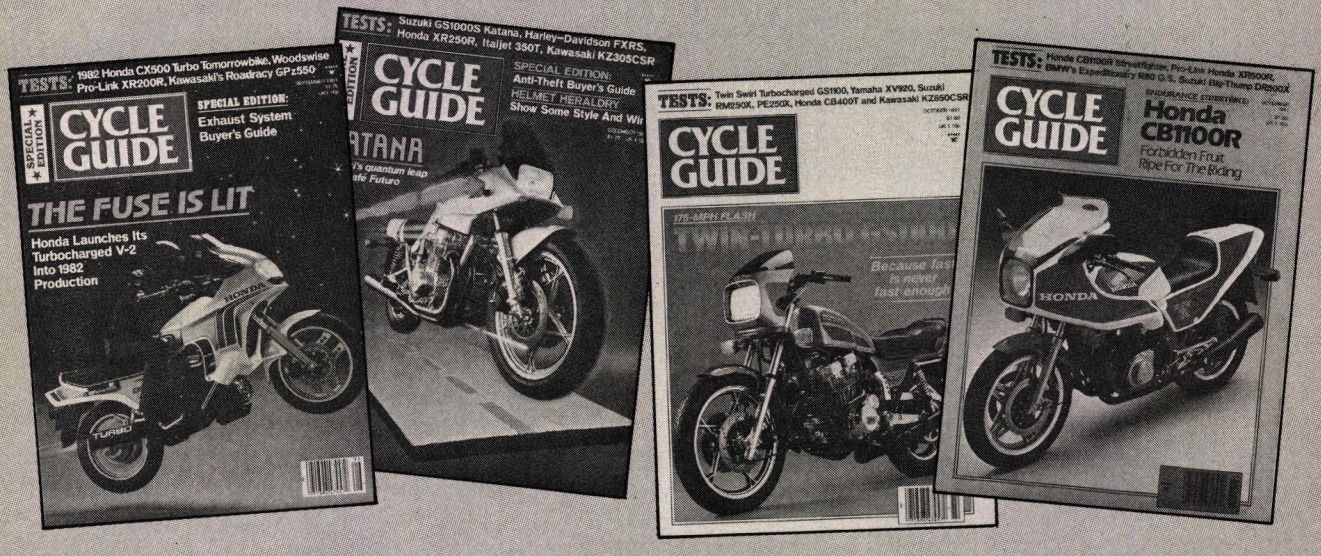
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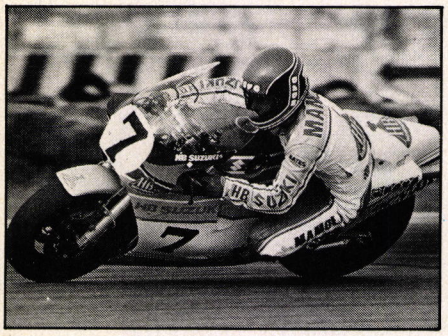
• When Kenny Roberts won the 1982 Daytona 200 pole position, all eyes were riveted on him, the stopwatch, and his motorcycle's rear tire. The stopwatch showed a time of 2.01:841 seconds, translating to a 114.346-mph average and a record. KR's tire was impressive because it was eight inches wide, bigger than any motorcycle roadrace tire ever.

The mammoth slick was developed by Dunlop especially for 500cc GP bikes such as Roberts' Yamaha. Its exclusivity is enhanced since only a handful of riders—Roberts, Suzuki teammates Randy Mamola and Virginio Ferrari, and Kawasaki-mounted Kork Ballington—will get them this year.

The goal in producing the monster tire, of course, was more traction. And so Dunlop applied the bigger-is-better theory, figuring eight inches of roadrace rubber is better than six, as



One of Dunlop's elitest, Randy Mamola

When seven leads to eight.

has commonly been used the past few years. And as Dunlop's Jim Allen says, a large tire not only puts more rubber to the pavement, it helps dissipate heat as well.

But tire theories notwithstanding, the new slick wasn't without flaw. A new problem arose during development: finding adequate room at the side of the monster tire for the swingarm and drive chain. In what well may be a case of the tail wagging the dog, Yamaha and Suzuki engineers had to redesign their bikes' rear quarters to allow for the new slick. A minor obstacle, it turned out, considering the benefits on the track.

And the rewards came quickly. Roberts' time speaks for itself. But more impressive was the fact that he set the new record on "race" tires; he never used the softer-compound qualifying eight-inchers that were available to him. He was confident the 2.01 was unbeatable. And it was, as Hondamates Mike Baldwin and Freddie Spencer could only get within about one mph of Roberts' qualifying speed. And they had to resort to ultra-soft Michelins—tires that wilted in the heat after only 10 laps into the race—to get those speeds.

The large-tire frontier is just opening, and Dunlop knows the work isn't over yet. In fact, says Allen, the technology is just being tapped: "It's still a development tire. It's not a fixed design." And so, continual R&D, as much as anything else, should help the big slick from slipping from the top of the GP circle.

—Jerry Smith

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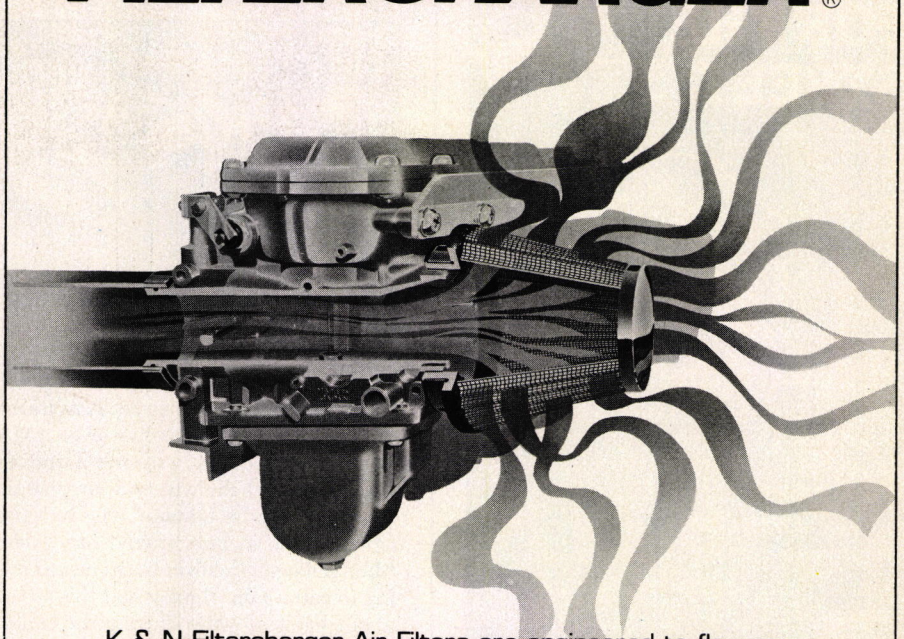

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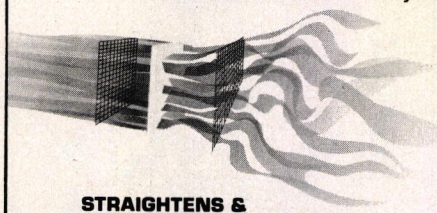

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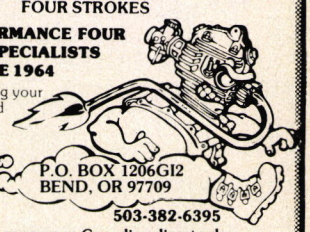

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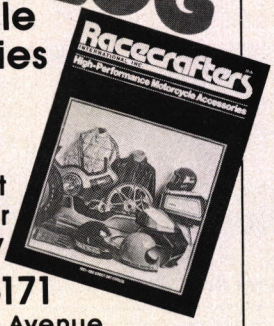

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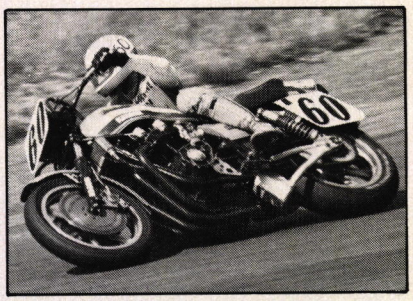
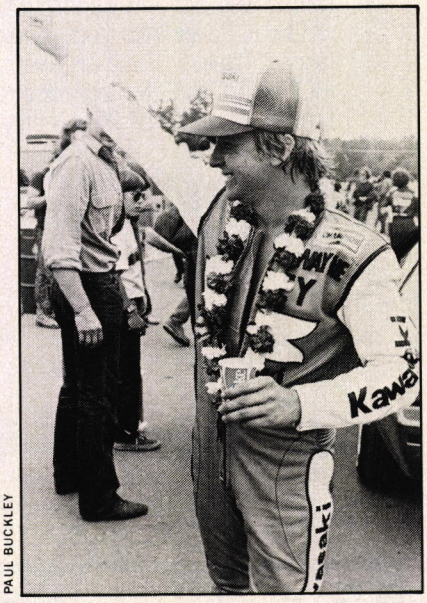


JERRY HUMIEC

Rainey charges for Kawasaki

And pays off with a win.

• Rainey days are here again: Kawasaki's Wayne Rainey won his first-ever AMA Superbike race by winning Loudon. Rainey earned the win, too, by passing teammate Eddie Lawson, who had tire trouble, then inching around race-leader Mike Baldwin. Baldwin later crashed trying to catch him. Rainey had this to say about his win, while sharing the champagne in victory circle with Lawson and third-place finisher Thad Wolff: "Gawd . . . gawd . . . I don't believe it . . . gawd." Between chants he raised his right fist to salute.



PAUL BUCKLEY

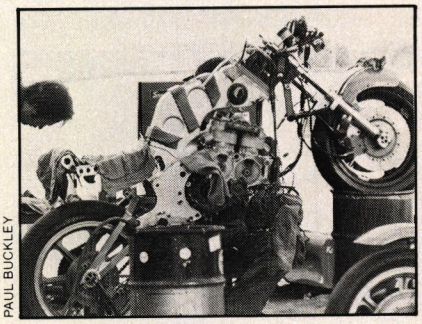
Wayne Rainey after Loudon win

Saluting the defeated.

• Gawd . . . a limo: When Rainey returned home to California, his parents met him at the airport. And waiting curbside at the terminal was a shiny, black limousine, rented by mama and papa Rainey to whisk the new winner home. That's what you get when you're number two on the team, and you try harder.

• Team Burned: All was not good news for Kawasaki after Loudon. While Rainey tried out his limo-for-a-day, the Kawasaki team van was on its way home. And somewhere between the Atlantic and Pacific oceans it crashed and burned, literally. There were no serious injuries to team mechanics, and according to sources at Kawasaki, the team bikes were damaged, but not beyond repair.

• Add Loudon: The Loudon Formula 1 race belonged to Honda and Mike Baldwin. Baldwin rode the FWS1000 to its first race win. Lawson rode his Superbike to second place. Evidently, the decision to ride the four-stroke instead of the KR500



PAUL BUCKLEY

The abandoned KR500

Lawson favored the superbike.

was a tough one, and only minutes before race time, tuner Steve Johnson pressed Lawson: "Look, you've *got* to decide on a bike—*I've* got to prepare one for the race." Lawson pointed to the tractable four-stroke, basing his decision on how the Superbike would be easier to pilot around the tight and twisty Bryar Motorsport Park track than the KR500.

• Mr. Magoo, you've done it again: Danny "Magoo" Chandler won the Datsun USGP at Carlsbad. Chandler took the lead several laps into the first moto after passing Honda teammate Darrel Shultz. Magoo followed basically the same script for the second moto, as well, but he crashed near the end to finish fifth. His 1-5 was good enough for the overall, with second going to Brad Lackey (3-3) and third to Belgian Andre Vromans (4-2).

• Malherbe out: While Magoo thundered and bumped to first, Andre Malherbe more than likely ended his season at the Carlsbad race. The two-time champ crashed in the second moto and broke his left leg. Meanwhile, the points battle shows Lackey leading with 146, and Suzuki teammate Vromans in the co-pilot's seat with 124.

• Schreiber wins Scottish Six Days: Former trials world champion Bernie Schreiber won the Scottish Six Days Trials on his SWM 230. Schreiber took the point lead on the final day when week-long leader Eddy Lejuene (Honda) made several costly mistakes, dropping to third

overall. It was the first Scottish Six Days win for an American, and the second straight for SWM.

• There's always next year: Randy Mamola has had a dismal GP season this year. For starters, teammate Virginio Ferrari—hired as number-two rider responsible for season-long testing so Mamola would always have the latest equipment at his ready—injured his wrist. Result: Mamola did double duty to complete the early-season testing, putting a strain on his schedule. And while Mamola was to get all the new parts for his Gamma-model Suzuki, he sometimes didn't have time to thoroughly test. Result again: Some expensive DNFs. Meanwhile, Franco Uncini of the Gallini Team—Suzuki's Italian counterpart to Race Promotions (England's home-based factory team)—continued to win, and is in the midst of a points war with Yamaha's Kenny Roberts. Ironically, this is a repeat scenario of last year when mechanical problems plagued Mamola at the end of the season, while Gallini-rider Marco Lucchinelli won the title on proven equipment.

• Lawson for hire: The big question at Winston Pro Series roadraces is who will hire Eddie Lawson for 1983? Evidently, his contract expires at the end of the year, and it's no secret that just about every road-race team—European and otherwise—is watching him closely. And Lawson has made no secret about his desire to run a competitive 500 in Europe next year. Which is why Kawasaki is trying so hard to make the KR500 a front-runner.

• Yamaha vee-four update: Kenny Roberts' new OW61 vee-four is having some teething pains. According to Roberts, the chassis is too flexible, creating traction problems. One Yamaha official said the OW61 is "too light," a rare reversal in speedthink these days. Further, the powerband is reportedly too narrow, and Roberts indicates the power delivery is peakier than the square-fours that Barry Sheene and Graeme Crosby continue to ride in GPs. Even so, KR won the Spanish GP with his rotary-valve vee-four, while Sheene took second.

• Honda in Spain: But the big news was Freddie Spencer winning the pole for the Spanish GP. It was the first time since 1966 that a Honda did so in the 500 class. Fast Freddie led the first six rounds, but dropped out with ignition problems. And at special request of King Juan Carlos of Spain, 125cc-pilot and Spanish patriot Angel Neito was given a one-time-only ride on an NS500 for the race. Neito later crashed and banged some ribs, but only after winning the 125 race—for the glory of Spain.

• Great Scott: Scott Pearson, the newest arrival to Honda's flattrack team, won the

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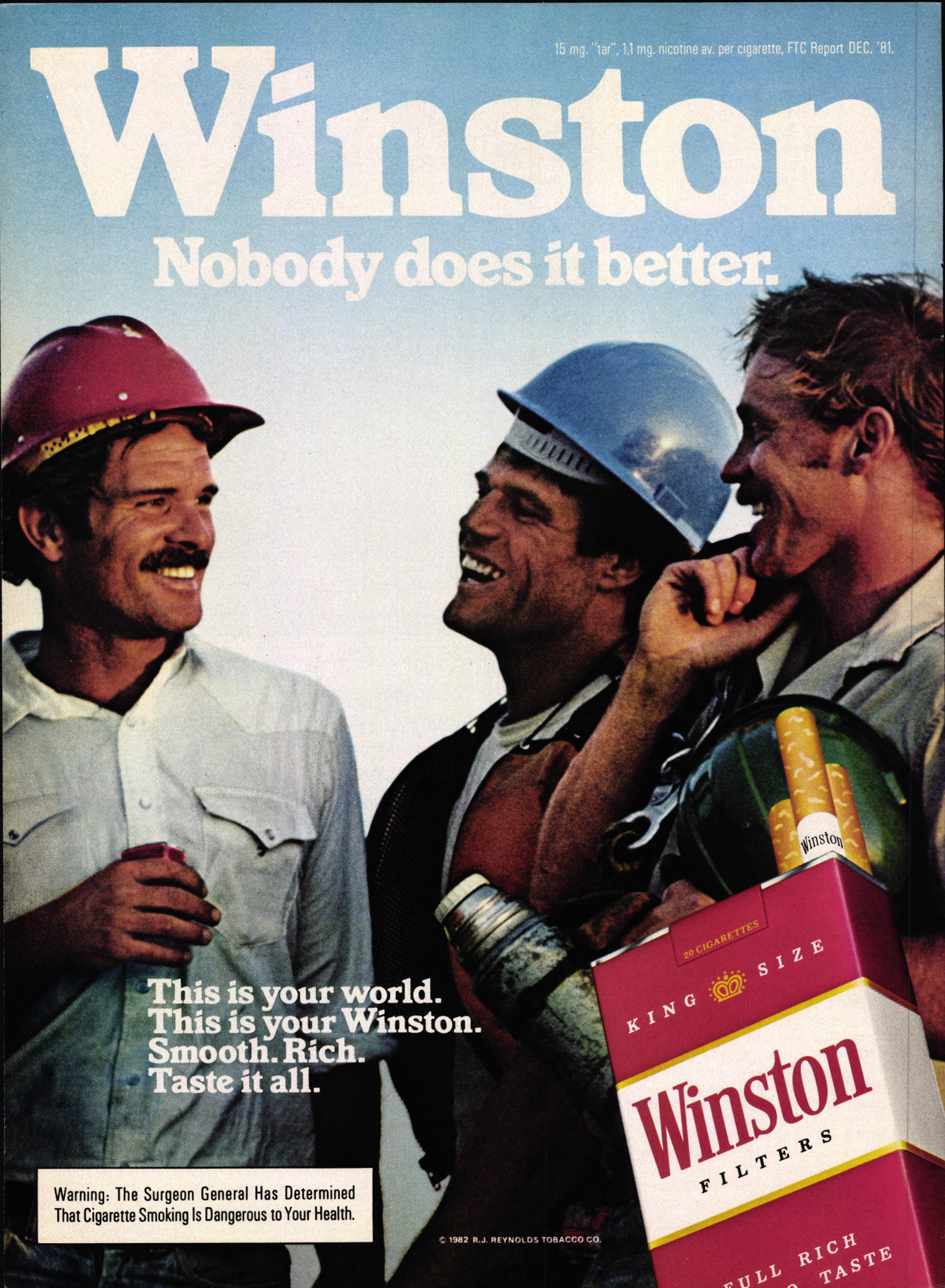

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Louisville Half-Mile on the NS750. It appears Honda has plans to make him its next No. 1, too, as he showed up at Loudon two weeks later for an F1 ride. Pearson is no stranger to roadracing, and has a couple of first-place novice pavement trophies in his collection. He ran as high as eighth in the Loudon main before brake troubles forced him out.

• Anti-Lift: Honda's European Open-class motocross team is experimenting with an anti-lift system for the rear wheel. The system helps to prevent the rear wheel from hopping during hard braking. It was first used at the Austrian GP, where Malherbe and Graham Noyce placed fourth and fifth in the second moto. Lackey walked away with that heat.

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Malherbe and Noyce try their anti-lifts

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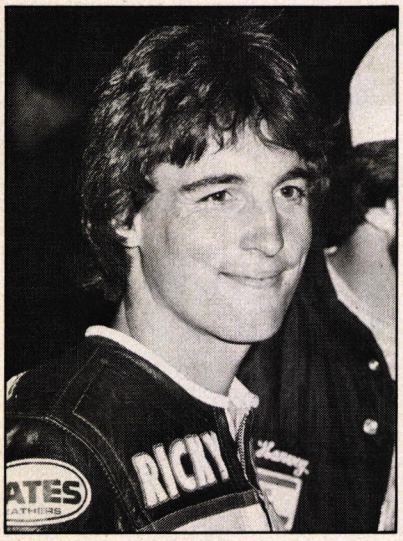

DAVID DEWHURST

Ricky Graham between heats

Practice makes perfect.

• Quote Department: Winston Pro Series point-leader Ricky Graham, after winning the semi-main to transfer to the main, where he placed second: "You get more practice that way." —*Dain Gingerelli*

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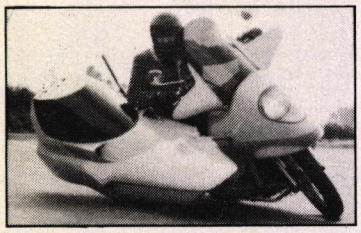

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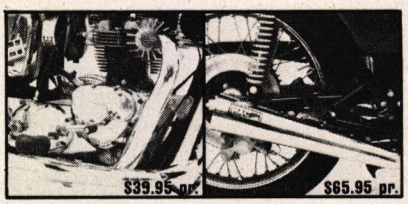

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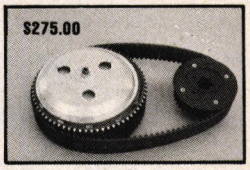

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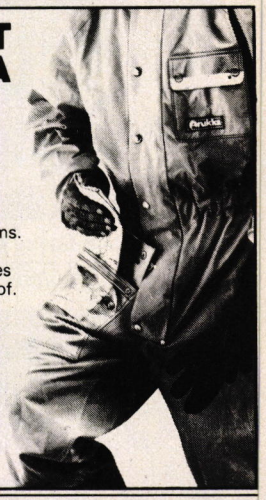

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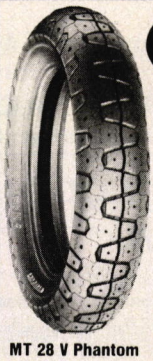

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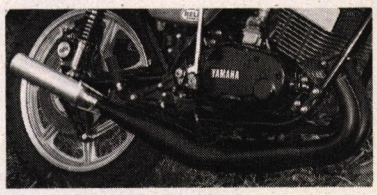

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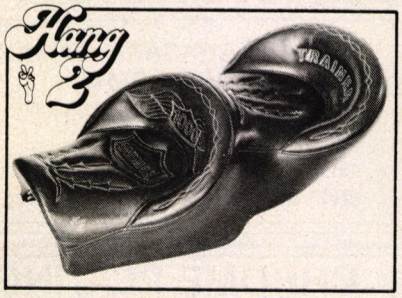

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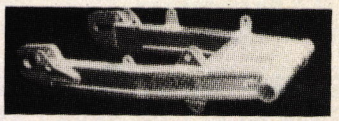

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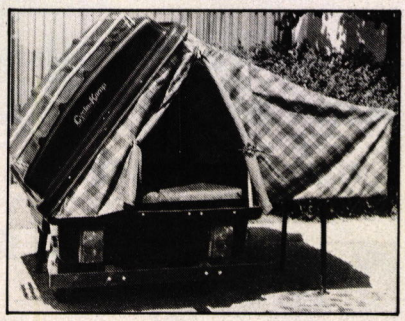

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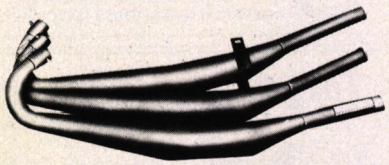

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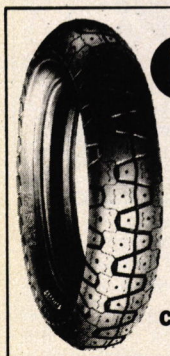

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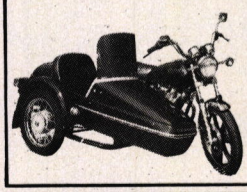

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Winners & Losers:

Inhospitable Rick Johnson

Please clean your boots outside.

• Privateers are the doormats of racing. When a factory involves itself in a championship bid, you can bet that the privateers, who usually have to scrimp and cut financial corners during the season, eventually will get a stomping by the Big Boys.

But Rick Johnson, a 17-year-old high school student from El Cajon, California, didn't hold to that rule. As a Yamaha support rider in the AMA 250 National class, Johnson made sure the factory guys cleaned their boots elsewhere. And for the majority of the 250 National season, Johnson rarely displayed the welcome mat himself, even to his semi-teammate Broc Glover.

Factory-support rider Johnson *almost won* the 250 title. He led the points battle after seven of the eight Nationals, and needed only a fifth-place finish at the Rocky Mountain National to win it all. But in the first moto at Rocky Mountain, he sailed too far and too high off a jump, landing beyond the cushy drop-zone that everyone had used during practice. When Johnson landed from his semi-orbital vault he bent his bike's front rim and axle. Honda's Donnie Hansen won that moto, and his third-place finish in the second heat gave him the title. The final score was Hansen 300 points, Johnson 297.

But Johnson's winning or losing wasn't important to the other privateers. What's significant for them is that Johnson rode a bike—a YZ250J—that any privateer could have bought from a Yamaha dealer.

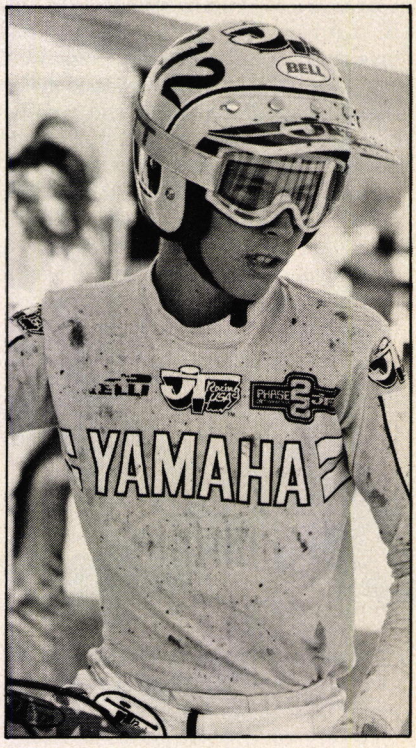
Johnson's 250J, according to race team manager Ken Clark, was essentially a stock YZ, but with some Bob Oliver tuning tricks applied, including careful attention to the cylinder's squish band. Clark adds that there were no lightweight "factory" parts that a privateer couldn't have bought, except for the magnesium wheel hubs.

As Clark points out, the real success behind the YZ250J was proper preparation by Oliver, and some gutsy riding by Johnson. "He's got a hell of a future in front of him," Clark says, adding that "Team Red and the other Team Yellow are looking at him, too."

But whether or not Johnson's Cinderella story has a happy ending doesn't matter to other privateers. The success for them is the bike—essentially the same bike that anyone can buy from a dealer. As further proof of the bike's near showroom-stock condition, it weighed about 10 pounds over the class limit. There were no high-tech unobtainum pieces on it.

It was Johnson who made the difference, not trickery. As Clark said, "He rode the hell out of his bike." And his ride will more than likely end at the doorstep of one of the factories. You can bet they'll have the welcome mat out for him, too.

—Dain Gingerelli



Rick Johnson on the slide

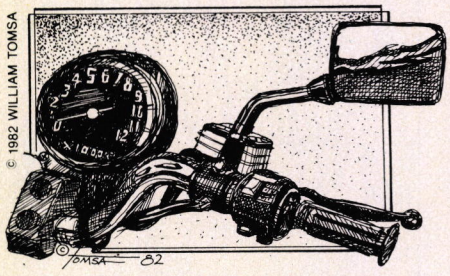
Laying some dirt on the mat.

LETTERS *Northern boasts, Armchair Toasts and It pays to look the part.*

MORE ORDERS TO GO

After reading the letters from Patrick Krause and Robert Duff (July '82 issue) I felt compelled to write. I, too, like the idea of big, vertical twins, and feel that Kawasaki's KZ750 twin would be just fine. If. If it had mag-style wheels, tubeless tires, chrome fenders and most important, *belt drive*. When, and if, Kawasaki makes these changes, I, for one, would buy this bike, as would a few friends of mine and probably a great many others as well.

However, I must add that the thought of bumping it up to 850cc really makes me drool. Maybe, if the KZ750CSR has a measure of success, Kawasaki will offer it in a more expensive, but better, version, incorporating all these changes.



One more thought. If Kawasaki could make it an 850 twin, why not a six-speed as well? With 6th as an overdrive, of course.

Come on, Kawasaki. We're waiting.

Richard Reed
Ottawa, Illinois

Tell Robert Duff and Patrick Krause (Letters, July '82 Issue), both from Michigan, that if they want to see 1982 model Kawasaki KZ750 twins they should simply cross the river at Detroit into Canada.

After a one-year absence in Canada, the KZ750S1, an LTD model twin, is once again available. It's painted maroon this year, and is the least expensive 750 that you can buy.

Just thought that I'd pass along the information.

John Alldredge
Toronto, Canada

No need to cross the river, Alldredge. Occasionally we get a new model down here, too—ed.

NOTES FROM THE NORTH

Please accept my apologies on behalf of my countrymen, Carruthers, Rielly and Duchesne (Letters, June '82). Sometimes, all this fresh air goes to our heads.

However, if their gloating hurt your feelings, this may be of some consolation: the fresh air and quiet of the Great White North rapidly is being devoured by the choking smoke and annoying whine of—you guessed it—RD350LCs. Now, my Honda CJ360 may be slow, but I'd rather take it on a 1000-mile trip than *any* RD.

As for the 1100 Katana available up here, don't worry. It's just as ugly as your 1000cc version.

Royal Samis
Alberta, Canada

WHILE ONE APOLOGIZES, ANOTHER GLOATS

I thought you might be interested in a configuration of the Suzuki Katana that I believe very few people know about; the GSX750.

I bought this bike on a whim a few weeks ago, in Kelowna, B.C. I wasn't in the market for a new bike, I just happened to be in the showroom looking over the new 1100 Katanas. The salesman mentioned that one of the bikes I was looking at was a 750, and having never heard of this size Katana, I perked right up. Just for the hell of it, I asked how much he'd give me on my old bike, and to make a long story short, I rode out on the 750 Katana.

The thing just gets better every day. Handling is on a par, or better (I hate to say), than the best I have ever ridden, a Ducati 750 Sport. There is a little buzzing between 3400 and 4100 rpm, but above that the bike smoothes out completely. It loves speeds above 70 mph, and because our RCMP aren't as, shall we say, "dedicated" as your Highway Patrol, riding at these speeds is a joy.

Contrary to everything I have read about Katanas, the bike is *not* uncomfortable on long trips. In fact, it's more fun to tour on than a pack of Aspencades—you just have to get used to it. And once you do, you'll never want any other type of motorcycle.

David Lukey
Vernon, Canada

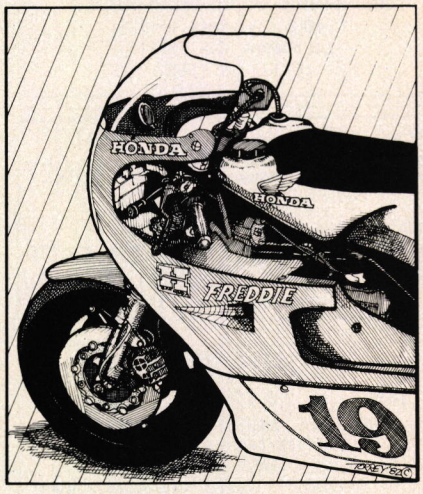
You sure know how to hurt someone, Lukey. Cruel, very cruel—ed.

ARMCHAIR WARRIOR

Recently I attended the Winston Pro Series races at Elkhart Lake (for the third year in a row) and really enjoyed them. The next week I was home watching the Indy 500, on television, and I couldn't help but wonder why they don't hold roadraces at Indy like they do at Daytona.

And about those motocycle races at Daytona: Why don't they televise them like they do the Indy cars? Motorcycle racing clearly is much more exciting than watching cars go around in circles.

Brian Visseis
Oneida, Wisconsin



The ESPN (cable) network did provide flag-to-flag coverage of this year's Daytona. As for the major networks—one can only hope—ed.

COUNT 'EM OFF

The letter in June issue (Logo Nogo) really hit home for me. It got me to thinking, and to counting. In addition to the logo on the mufflers, my '82 Kawasaki GPz550 has the company name in 15 other places on the bike.

Now, even if it doesn't detract one bit from the performance of the machine, flying the company name in that many places seems a bit much to me.

Dan Carapellese
Glendale, Arizona

And even more when you ride wearing your Kawasaki helmet, jacket and gloves—ed.

LOOKING FOR A FREE LUNCH

In response to the editorial, "By The Nose" (June, '82): It is true that the number of lawsuits for product liability is cause for concern, but no more so than the number of lawsuits in general. This country of ours has a great legal system, something that separates it from most other nations on earth. However, much too often that system gets abused.

Because of product liability lawsuits, it might be argued, some products have been made safer for future use. Yet there is little doubt that far too many suits are instigated for the simple reason that someone wants to make some money, that someone the person doing the suing.

While it's technically true that you are innocent until proven quilty (negligent in civil matters), a plaintiff can sue for almost any reason, no matter how absurd. The defendant has little choice but to answer the suit and try to defend himself.

Continued

LETTERS

That's just how the game works, and our courts are packed because of it.

Steve Mitchell
Ventura, California

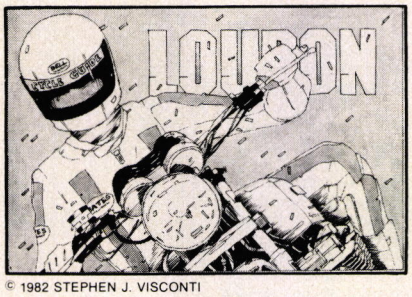
Sad, but true—ed.

ROAD AND WHAT?

I've subscribed to CYCLE GUIDE for over two years now and I often describe your magazine as the "Road & Track" of the motorcycle world. Both magazines go for the exotic, high-performance machines that most enthusiasts only can dream about. That's one of the main reasons I subscribe.

But you fall short of the comparison in one respect. "Road & Track" regularly features the classics, the pioneers, the machines that were the "leading edge" in their time. Not since Steve Thompson's "Riding a Rocket", back in '80, have you done anything like this. You received a lot of letters on that article, so I know that the interest is there. Some of us do ride machines that are more that 10 years old.

So let Thompson do what he does best: History. Let us see that Commando Production Racer at the Isle of Man. And I know there are Ariel Square Fours being ridden daily. Don't tell me that I'm reading the wrong magazine.



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M. B. Kearney
Gaithersburg, Maryland

Of course not. And for more history from Thompson, stay tuned—ed.

THE PRO LOOK

I just read your article about bikes at the Long Beach G. P. I was there with the 200cc GPX Karts, and shared space in the pits with the bikers. I have nothing but praise for the professional conduct exhibited by them. The race was pretty good, too. But I would like to add some constructive thoughts.

I suggest that to look the part at a big-time event, such as Long Beach, all crew members dress alike in some kind of uniform. It looks much more professional, to the spectators *and* the promoters. I know that the Kart crews all wore uniforms, and this was our second year at Long Beach.

One more note. When the bikes left the garage, they went directly out on the track for practice and the race. The Karts, however, pushed down to a pre-grid area before going out on the track, giving spectators who didn't want to buy the extra garage pass a chance to get a closeup look at the Karts and drivers. They could ask questions and there was even some autograph signing. It all amounted to great PR for the Karts. We need it, and I'm sure the bikers could use some, too.

I hope that you take this letter as constructive criticism, and not as a slam. It certainly isn't meant as one.

Kevin Sterner
Tucson, Arizona

And certainly not taken that way. After all, only a fool would argue against a little class in the act—ed. ●

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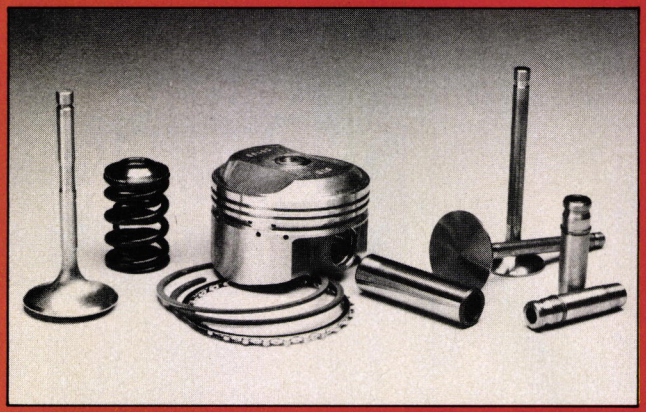

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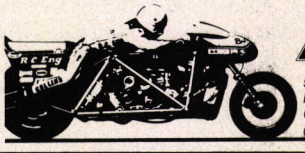
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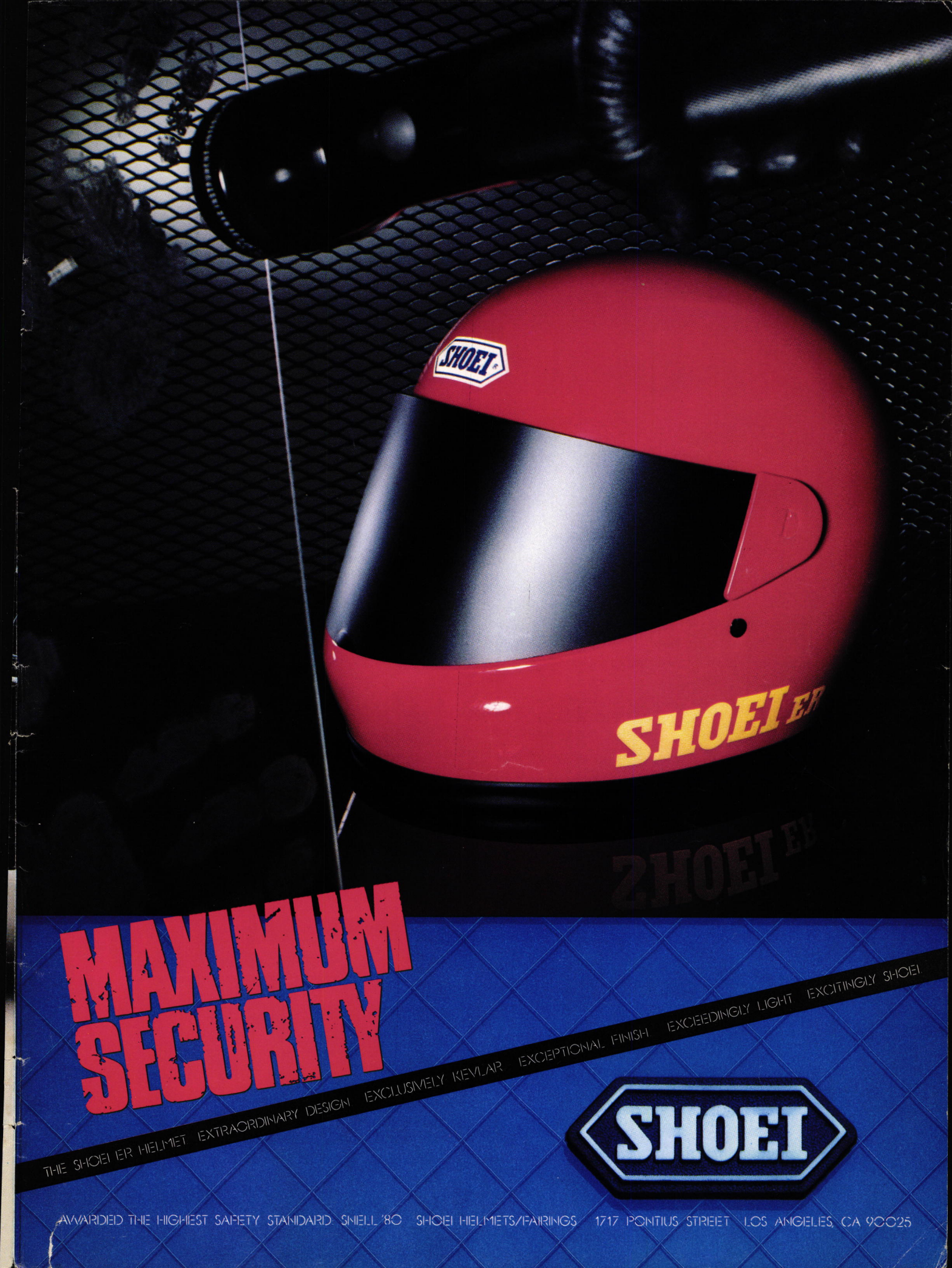

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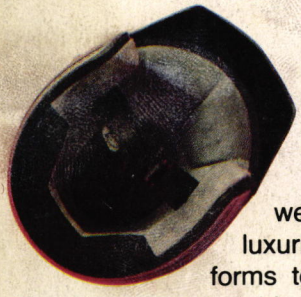

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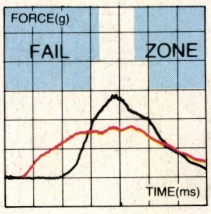

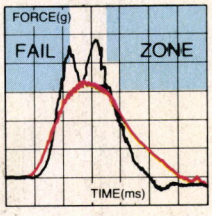

IMPACT FELT BY HEAD 5" FLAT DOME TYPICAL AMBIENT TEST

Maximum force transmitted to the head:
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Competition: 235g

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